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ABSTRACT

Many programs designed to improve youth career planning and development processes face several limitations. To improve such methods such rationale are necessary: (1) make explicit the assumptions underlying these programs; (2) describe the planning methods and criteria for deriving youth goals and performances objectives; (3) specify desired youth outcomes in terms of measureable criterion behaviors related to assessed needs; (4) make sure instructional and counseling procedures are feasible; (5) demand that the youth activities involved in the selected procedures are scheduled, and the staff services and material resources required to conduct these activities be collected and implemented; (6) employ summative and formative evaluation designs to study both the expected and unexpected outcomes of these programs; and (7) require continuous revision of program activities, based on evaluation feedback, until such programs were fully effective for their intended audiences. (Author)

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Planning, Developing, and Field Testing Career Guidance Programs

A Manual and Report

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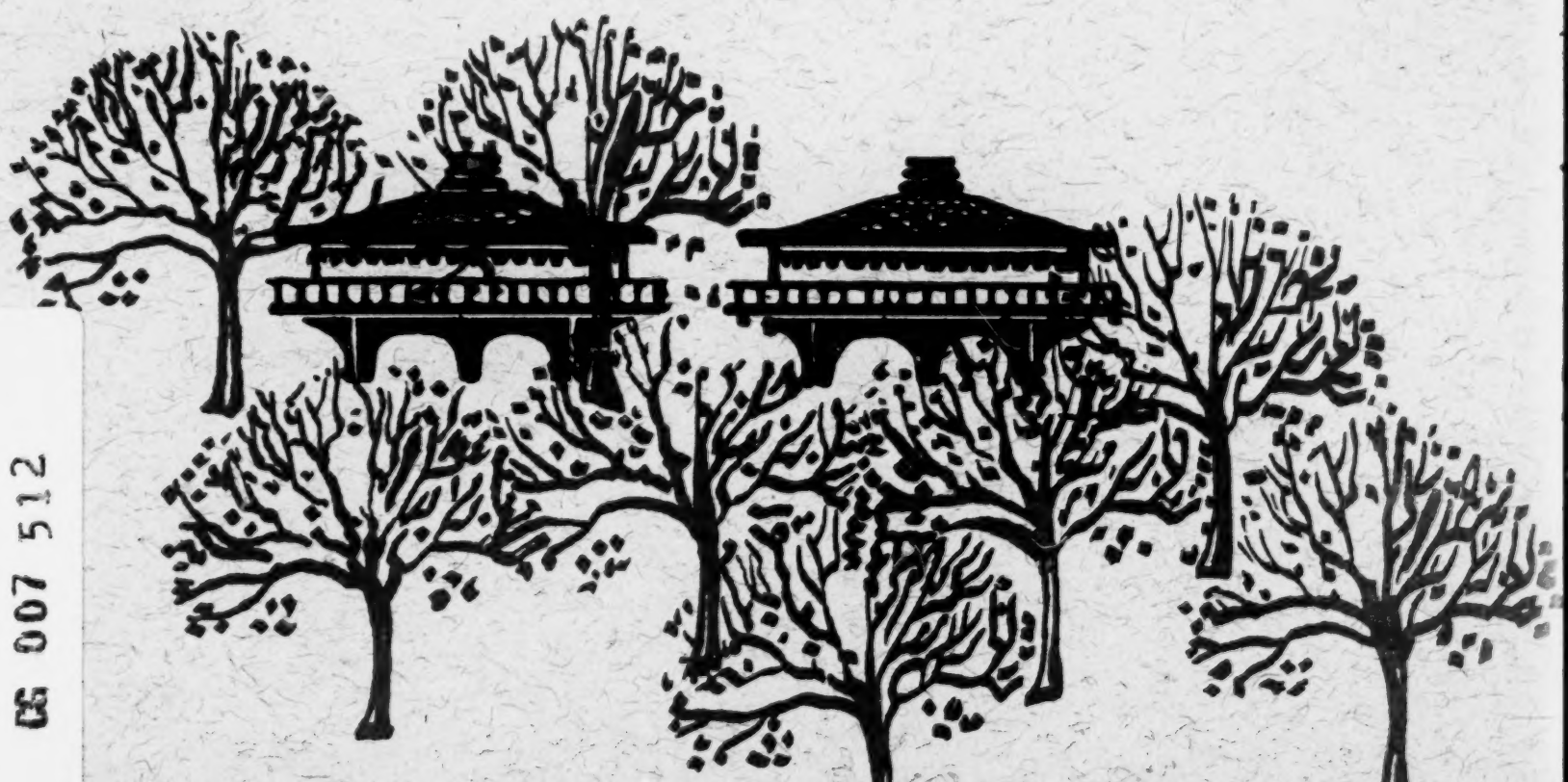

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FINAL REPORT

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National Center for Educational Research and Development

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Palo Alto, California

June, 1972

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HEALTH, EDUCATION, AND WELFARE

Office of Education

PREFACE

In reviewing counseling and guidance programs nationwide, we found a large number of research, development, and demonstration activities being conducted with the stated goal of improving youth career planning and development processes. However, most of these efforts suffer from at least three limitations. First, many studies involve merely descriptive surveys of the status quo instead of attempting to observe what effects on the lives of students can be produced by employing well-planned guidance programs. Second, few studies have evolved from a well-conceived framework beginning with detailed planning activities and systematically proceeding with development, implementation, evaluation, and revision phases. Finally, there have been virtually no efforts to design and implement guidance programs in settings where the program activities were integral parts of the total educational system and not simply a set of auxiliary procedures.

We determined that the best way to overcome these deficiencies was to create and eventually field test an approach to <u>systematically</u> designing, implementing, and evaluating guidance programs. The approach necessarily had to be based on a rationale which: (1) made explicit the assumptions underlying these programs; (2) described the planning methods and criteria for deriving youth goals and performance objectives (program product objectives) from priority youth needs; (3) specified desired youth outcomes in terms of measurable criterion behaviors related to assessed needs; (4) required investigations of a wide range of possible instructional and counseling procedures for helping youth achieve their objectives, and selections among them (in order to develop <u>program process</u> objectives) on the basis of criteria such as appropriateness for target youth and feasibility of use; (5) demanded that the youth activities involved in the selected procedures be scheduled, and the staff services and material resources required to conduct these activities be collected and implemented; (6) employed summative and formative evaluation designs to study both the expected and unexpected outcomes of these programs; and (7) required continuous revision of program activities, based on evaluative feedback, until such programs were fully effective for their intended audiences.

With support from the United States Office of Education's (USOE) former Division of Comprehensive and Vocational Education Research, we completed an initial two-year project to design a Comprehensive Career Guidance System (CCGS) for youth career planning and development based on the rationale summarized above. The key assumption underlying this system is that youth can learn to plan and undertake their career development in more informed ways than they presently do. Guidance programs should not <u>force</u> youth to make decisions; rather youth should learn <u>how</u> to make decisions wisely and should receive assistance in formulating and pursuing their career goals at critical points when such help is needed in their lives. About three-quarters of the activities of this initial

project were devoted to systems analysis and design tasks including the development of specific guidance programs that featured a variety of instructional and counseling procedures. The remaining quarter of the project's activities focused on evaluation tasks.

With the intention of evaluating guidance programs that had been developed during the first project, we requested and obtained further USOE support for a second project which focused on a field test of the CCGS programs--either existing ones or variations of them once they had been adapted to the needs and characteristics of youth in particular field test settings. This second 18-month project involved field tests with ninth- and tenth-grade students in demonstration schools in two school districts: Houston (Texas) Independent and San Jose (California) Unified.

The results of the nearly four years of effort represented by these two projects are summarized in three volumes. The first volume entitled, *Development and Evaluation of a Comprehensive Career Guidance System*, explains how the CCGS was designed and partially evaluated during the first project. Information on how to obtain a copy of that report appears on page 20 of this document. The present volume describes the systematic process of planning, implementing, and field testing guidance programs that was utilized in the second project; the format is tailored especially for readers who desire to use this comprehensive planning process for designing or adapting guidance programs in their own school or district settings. The final volume reports data collected and analyzed during the conduct of the second project, along with descriptions of the field test hypotheses, experimental designs, treatments, criterion measures, and conclusions.

To build upon the efforts of the first two projects to produce career guidance programs that will better serve the needs of all youth, instead of a small fraction of them, further long-term research and development activities are required. One subsequent activity must involve the development of programs for youth in academic levels not covered in the field tests reported here. Another activity necessitates a follow-up of youth who receive such guidance assistance. The ultimate desired outcome is a comprehensive set of guidance programs that will be available to serve as models for school districts interested in having programs that actually meet the career needs of youth. These programs will include specific instructional and counseling materials and procedures which have been empirically tested, revised, and retested until they are sufficiently effective with target youth.

The primary purpose of the present document is to provide assistance to guidance personnel who wish to improve (or to design new) guidance programs in their school or district by employing a comprehensive planning process. Chapter V of this volume should be especially helpful since it presents an extensive listing of 12 product and 86 process objectives to enable guidance program planners to translate the CCGS planning process into an operational outcome format. In addition, that chapter includes references to sample training materials which might be used by program

planners interested in attaining the stated product and process objectives. Individuals who intend to use the approach described in Chapter V and who have questions regarding its application should feel free to contact the:

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The assistance and patience of many people were required to make both the project represented by this document, as well as the production of this manual and report, possible. Indeed, many more individuals were involved than the space available here will permit us to list. Most of all we appreciated the cooperation of all students involved in the field tests. We hope that the guidance programs in which they participated will have positive effects on their careers, extending far beyond the short-range impact we discuss in this document.

The consideration and resourcefulness of staff in the field test schools created the local "ownership" of the programs investigated as well as encouraged us beyond our initial expectations. In particular, we pay special tribute to Mr. Frank Wesley, principal at Booker T. Washington Junior-Senior High School in Houston, in addition to Mrs. Genette Smith, Miss Faye Bryant, and Dr. Dennis Nelson--all BTW "residents" at some time during this project. In San Jose, we would like to express deep gratitude for the efforts of Mr. Albert McKeever, principal of John Muir Junior High School, and key members of his staff including: Mr. Carlton Stevens, Mrs. Pat Adshade, Mr. Samuel Wiens, Mr. Harold Garrett, Mrs. Nina Tinkham, Miss Joyce Batson, and Mr. Don Crowell. At Pioneer High School in San Jose, we depended upon the encouragement and patience of administrators Mr. Ralph Sleight and Mr. Robert Mercurio. In addition, the following staff made exemplary contributions to this project: Mr. Cornelius Hospers, Mrs. Gail Clark, Miss Mary Bodamer, Mr. Carl Hoch, Mrs. Judy Opfer, and Mr. Michael Shamony. The quasi-experimental studies conducted during the field tests would not have been possible without the cooperation of students and staff members from our "control" schools: M. C. Williams Junior-Senior High School in Houston, Edwin J. Markham Junior High School in San Jose, and Leland Senior High School also in San Jose.

The thoroughness, initiative, and creativity of the following staff members at the American Institutes for Research are sincerely appreciated: Mr. Brian Klimkowsky, Mr. Rod Perry, and Mr. Ron Harris. Mrs. Frieda Barlogi had to suffer the administrative pain of this project as well as supervise and contribute to the production of all manuscripts. Needless to say, we extend her our best wishes for her future successful business ventures in Yuma, Arizona. This project might have enticed her into an early retirement from AIR! Miss Paula Matthews and Mrs. Jan Jones, our typing wonders, deserve special accolades for their efforts under duress.

Finally, but not least, we express appreciation to USOE's National Center for Educational Research and Development for providing us with the opportunity to conduct this project in the exciting and challenging area of career planning and development. We could not have asked for more excellent project monitors than Drs. Susan Klein and Laurence Goebel. They made significant contributions to the design of the field tests and this document.

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CHAPTER I

CCGS Overview, Conclusions, and Recommendations

This Report

This is the final report of a project which developed and field tested elements of an individualized guidance system for junior and senior high school students. Sponsored by the National Center for Educational Research and Development of the United States Office of Education, this system, called the Comprehensive Career Guidance System (CCGS), helps individual students to formulate and advance toward goals in all areas of their lives.

This document goes beyond the usual reporting functions by also striving to be helpful in improving the skills of school personnel in planning, implementing, and evaluating local guidance and counseling[1] programs. To this end, the report is organized according to the phases of a recommended planning process. The reader who wishes to use this report to improve his skills is encouraged to use the behavioral objectives of each chapter as a reading guide and self-testing instrument. Such objectives are listed at the conclusion of each of the first four chapters. Chapter V contains 12 product and 86 process objectives outlining steps program planners might consider when applying this recommended planning process.

This chapter acquaints the reader with some of the guidance problems which motivated the development of the CCGS, and the purposes and key concepts of the system which evolved. It describes the products which resulted, and the field test procedures and results. Finally, it provides major conclusions and summaries. (For the behavioral learning objectives associated with this chapter, please refer to page 22.)

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[1] *As explained in this chapter, the term "guidance" is generic and includes counseling, instructional, evaluation, and support procedures implemented to meet the needs of youth.*

The Need for Guidance Improvements

The development and field test of the CCGS was undertaken in an attempt to solve problems typically faced by school guidance personnel. The following three statements, made by high school students, highlight some of these difficulties.

"All my counselor has ever done for me is to change my schedule and fix my computer registration cards."

This first statement illustrates the problem that can be called "the maintenance syndrome." A counselor can easily spend all his time dealing with routine but pressing tasks. His schedule becomes so filled with them that no time is left to adequately plan a guidance program, let alone properly carry it out and evaluate it. The lack of planning time often leads to poorly implemented guidance programs organized on the basis of hunches and intuition. Only by chance, if at all, do they address and fill the needs of even a small portion of the youth they serve. Even when these guidance programs are evaluated, a rare occurrence, the focus of such evaluation is not usually upon changes in the behavior of students. Actual behavior changes indicating the resolution of a student's needs must be the ultimate success criterion of a guidance program. A satisfactory guidance system is organized in a manner which makes it possible to obtain formative evaluation data that identify which elements of that program need improvements and which are functioning adequately. Without this formative evaluation data, little progress can be made toward meeting student needs more effectively.

"My counselor only has time to see students who get in trouble. I've talked to him only once in almost two years."

Counselors who have time only for problem students are forced into a crisis orientation to guidance. They attempt to solve a students's problems only after these problems have become critical. By providing only remedial attention to students with obvious difficulties, they fail to deal with the development of the majority of students whose needs are equally legitimate, if less salient. Limiting guidance services to small numbers of students or restricting counseling to periods of crisis in an individual student's life prevents placing primary emphasis on developing students' personal problem-solving skills related to individual planning, goal selection, and self-management. Without these skills, few students are able to solve personal problems without help, and the number of crises increases. The chance that they can expect to achieve successful, productive, and satisfying lives focused on personal goals diminishes. In essence, a crisis-oriented guidance program fails to address the basic needs of most youth.

*"Why should I study English?
I want to be an engineer,
not a poet."*

When guidance activities are isolated from the regular instructional process in the classroom, students often fail to see that their school studies can be related to achieving their life goals. Not perceiving the task of learning as significant and necessary, they become bored with school subjects. They often react by marking time until they can drop out of school--and join a labor market that has few opportunities for the unskilled. A major task of a guidance system is to help develop and explain the functional relationships between education and the worlds of further education and work, so that students can comprehend the importance of the skills and knowledge they are acquiring in each of their classes. This integration and communication is difficult to achieve when the counselor is a figure in a remote office and does not participate with the teacher in the task of educating youth.

Student statements such as the ones above are serious indictments of guidance programs and systems characteristic of today's schools. They illustrate only a few of the serious difficulties facing guidance workers across the nation. The CCGS attempts to demonstrate solutions to pressing guidance problems such as these. It is a distinctive approach for individualizing education and it can be adapted to local needs and circumstances. The remainder of this chapter will briefly familiarize the reader with the characteristics and development of the system.

CCGS Purposes

The two main purposes of the system are:

1. to enable each young person to learn and practice a problem-solving process which he will be able to apply in each area of his career planning and development;

2. to assist each young person to set and achieve career goals and related objectives appropriate to his needs and characteristics. This involves stimulating him to: obtain information about the requirements for (and probable consequences of selecting) a wide variety of career alternatives; begin formulating his life goals in light of this information; plan an educational program that is relevant to his personal life goals; manage his development; and assess his progress toward achieving his goals.

Key Concepts

The major characteristics of the CCGS can be summarized by 15 key concepts which distinguish this system from conventional approaches to guidance programs. In the following paragraphs, each of these concepts will be briefly described.

CCGS Definitions

This system's definitions of guidance and counseling contrast with traditional use of these terms. "Guidance" is the generic term. It includes instructional, counseling, evaluation, and support procedures based on youth career planning and development needs. "Guidance" signifies the total content and personal problem-solving process of programs aimed at helping students develop and protect their individuality and potential. This process aims at helping "each student be a problem solver" (planner, decision maker, implementer) in each career area. On the other hand, "counseling" is an interpersonal procedure providing one alternative for helping youth achieve guidance-related objectives. Here, counseling personnel (i.e., counselors, teachers, paraprofessionals, school psychologists, etc.) interact with students individually or in groups in order to facilitate youth career planning and development. If these terms are defined at all in conventional guidance systems, the word "guidance" often has negative connotations (including authoritarian advice giving and prescriptions of problem solutions), is given a very limited conceptualization, or is not clearly differentiated from the term "counseling."

The concept of career encompasses a variety of possible patterns of personal choice related to each individual's total life style. The content of CCGS programs assists youth to set life or "career" goals in these areas:

1. occupations,
2. education,
3. personal and social behavior,
4. learning-how-to-learn,
5. social responsibility (i.e., citizenship) development, and
6. leisure time activities.

Conventional guidance programs often limit the definition of career to only educational and vocational choices. An explicit rationale, based on empirical evidence which explains why such a limited definition is justified, is rarely provided.

This broad definition of "career" leads to a concept of career education which encompasses all areas of youth development. This orientation allows and encourages the fulfillment of a broad range of youth needs; it is contrasted to conventional systems in which priority attention is directly only toward preparing youth for their future educational and vocational experiences, therefore reflecting a limited and fragmented view of youth development.

The Major Characteristics of CCGS

The system employs a systematic planning model and related process that is derived from the scientific method and aimed at the development, implementation, evaluation, and revision of guidance programs. The model proposes a process in which each phase provides feedback to preceding phases or input to subsequent planning activities. All phases of this process are necessary to assure that the genuine guidance needs of youth will be met in the order of their importance. The systematic planning approach contrasts with the development of typical guidance programs, in which certain important phases of the development process (e.g., evaluation) are often omitted or an inordinate amount of the available resources are devoted to only one or a few phases. In the development of such guidance programs, the implementation or action phase often receives attention at the expense of the other phases of the comprehensive planning model.

The Comprehensive Career Guidance System is a true system in its component products as well as in its planning model. Each part is interrelated and interacts with the others to form a unified whole. The basic product elements of the system are 12 components which derive from a written rationale that describes early CCGS needs assessment activities, as well as the philosophy and assumptions on which this system is based. Conventional guidance "systems" are not often based on an explicit rationale which outlines all the parts of the system and the way these parts are interrelated. Without such a statement, it is difficult to understand either the derivation of a guidance system or why certain aspects of it have been assigned a high priority.

The system focuses on the needs and characteristics of youth. Secondarily, it addresses the needs and characteristics of the institution in which it functions. Due to this youth-based orientation to guidance, CCGS specifies the desired youth outcomes that derive from the assessed needs of youth, and translates them into behavioral objectives. It is upon these needs and objectives that priorities for the design, implementation, and evaluation of all guidance interventions are based. Conventional guidance approaches often emphasize means rather than ends. Their goals usually result from a need to perpetuate and expand the current system whether or not it has been shown that the system is doing a good job of helping youth. Plans for more staff, more staff training, more equipment and space, or more student time in traditional guidance activities fall in this category.

The system is comprehensive in that it includes interventions directed at youth through both a developmental phase to prevent problems, and a prescriptive phase to help youth alleviate problems which persist. At the same time, indirect interventions are made on behalf of youth in the school and community. The comprehensiveness of the CCGS is also enhanced by the fact that the system seeks eventually to give attention to immediate as well as long-range youth needs, and to all areas of behavior, not only to a youth's educational and vocational choices. This is true for all youth at each academic level, K-12. The comprehensiveness of the CCGS contrasts with conventional approaches which often limit the interventions of their guidance personnel to only some areas of the needs of all youth or to all the needs of only selected youth.

How CCGS Approaches Youth

The system is designed to be implemented in individualized education settings. Individualized education provides instruction which is tailored to each youth's personal characteristics, background of experience, needs, and career goals. It is more than just individualized instruction because each student is involved in the process of selecting his goals and planning the activities he will use to achieve them. Each student's learning

activities are thus made relevant and meaningful to him. In individualized education, school personnel help youth to assess their potential and limitations, to discover their needs, to formulate personal short- and long-range goals and related objectives, and to develop a program of studies to achieve each of their goals. Programs for youth are based on instructional objectives and sequences which enable each individual to progress at his own pace and use procedures and materials designed for his learning interests and styles. This individualization of the learning process is not possible in many conventional school contexts, especially in those where the goals of school personnel, not students, receive primary attention.

The organizing, humanizing core of the type of individualized education outlined in the above paragraph is found in the individual planning activities of an individualized guidance system. The CCGS assumes that career planning and development are most satisfying for youth when they engage in behavior directed toward goals they have either selected themselves or agreed upon. Without individual planning, individualized education does not progress beyond individualized instruction. Similarly, career education usually either imposes societal goals on youth or confuses students by not informing them of the goals and objectives of their instructional activities.

The central theme of "each student as a personal problem solver" runs through the programs and units. Each program attempts to help youth learn and apply personal problem-solving skills to the formulation and pursuit of individual goals in each of the six areas of career planning and development. Specific skills are grouped into three emphases: planning, decision making, and implementing plans as well as evaluating results. The personal problem-solving approach to student instructional and counseling experiences emphasizes both the process and the results of career decision making. It contrasts strongly with traditional guidance strategies which often emphasize evaluation of the results of a student's decision making but fail to teach him the personal problem-solving skills which will help him make decisions more wisely in the future.

Implementing CCGS

Individual planning activities within this approach are primarily implemented through direct intervention with students. Programs and units are the resources used. Unlike most commercially available materials or procedures, they can be adapted to the local needs and characteristics of youth in designated target populations. A "program" is a set of individualized guidance units designed to help students achieve groups of objectives. Each area of career development is the focus of one or more programs. A "unit" is an individualized learning package of instructional and counseling activities. It focuses on one subset of the objectives of a program. CCGS units within a program are interrelated but, in many cases, can be used independently. The same is true of CCGS programs.

The implementation of these programs is not dependent on specially-trained counselors as are many guidance approaches. However, the programs do depend on human interactions to facilitate youth development. Interactions occur between students and skilled adults responsible for program implementation, between individual students, and within groups of students. CCGS stresses the concept of counseling personnel, which includes any adult with the ability or potential to communicate effectively with students and contribute to their growth. Teachers, administrators, or paraprofessionals can implement this type of program if counselors are not available. Optimal results are obtained if counselors and teachers work together as teams and receive support from a paraprofessional who staffs a learning resource center. In this framework, counseling personnel become youth planning and development specialists. They facilitate student career planning and growth through direct interactions, but they also monitor the total school system and community resources to insure that youth can achieve their individual objectives and goals.

Training materials and procedures are available to help counseling personnel acquire the basic skills necessary to successfully implement and evaluate CCGS programs. Traditional guidance systems which depend only on counselors and keep these counselors engrossed in clerical tasks and student crises, which fail to recognize special contributions counselors can make to the total educational process, and which assume that in-service training of counselors is not necessary, are antithetical to the orientation outlined in this paragraph.

The programs and units of this system can and should be completely integrated into the school curriculum. In such a case, their identity as "guidance" strategies will be lost. This is desirable. If such integration occurs, individual counseling sessions, group counseling interactions, and group guidance experiences can be closely correlated with classroom activities. Counselors can be invited to meet with students in classrooms where individuals or small groups of students are ready for activities which require a counselor. This procedure contrasts with the typical counseling situation in which the counselor remains in his office and calls students out of the classroom, often for disciplinary purposes only.

Formative and summative evaluation strategies are used in the CCGS: formative evaluation focuses on improving career guidance resources; summative evaluation focuses on determining the overall impact of the resources. Both types of evaluation center on the measurable (behavioral) objectives which are derived by using the system planning model and process. These evaluation strategies:

1. assess the effect of each program by comparing changes in the behavior of students who did and did not receive it;

2. assess the extent to which the comprehensive guidance programs are implemented as they were originally designed; and

3. assess the unanticipated outcomes of the programs.

Major emphasis is placed on the use of end-of-unit and survey instruments for evaluating each student's career development based on the knowledge, attitude, and overt behavioral outcomes he achieves. Case studies, questionnaires, interviews, and observation techniques can be used to assess some of the long-term effects of CCGS programs. Traditional evaluations of guidance and counseling systems have depended almost exclusively upon collecting subjective reactions to the purposes and impact of such systems. If guidance systems are to improve and to continue improving in meeting the genuine needs of youth, there is a major need for the type of rigorous and more comprehensive evaluation designs and procedures which are attempted in CCGS field tests.

CCGS Products

There are three main types of tangible CCGS products: (1) a written model which describes all phases of the planning process and how they interrelate; (2) a training program to enable school personnel to use the planning process; and (3) a collection of procedures and materials which have resulted from applying various stages of the planning process to youth in specific school settings. The CCGS planning process which is the base of all these products was employed to develop elements for each cooperating school which participated in the field tests outlined in this document, and may be used anywhere that guidance improvements are desired. This system is very much opposed to a "canned" or prepackaged approach to career guidance. Schools are encouraged to develop guidance programs that meet local needs by adapting this planning process, training key staff and students in this process, and examining its earlier applications.

The Planning Model

The five-phase planning model focuses on identifying and meeting the needs of youth. By using the CCGS planning process, local school staff may develop, implement, evaluate, and revise their own guidance systems. The five phases are:

1. identifying youth development needs and related measurable objectives;

2. classifying objectives by commonalities;

3. specifying and selecting alternate strategies for helping each youth attain relevant objectives;

4. implementing selected strategies; and

5. evaluating and revising strategies.

The Training Program

In developing the CCGS, it was assumed that the counseling personnel who implement it or oversee its implementation will be trained in counseling skills such as: the ability to communicate with youth; the ability to apply current, effective counseling procedures in practical situations; and the ability to draw upon an extensive knowledge of guidance resources. The inadequacies of local guidance systems normally arise not from the lack of such skills, but from the failure of school personnel to apply a systematic, comprehensive planning process to the development, implementation, evaluation, and revision of such systems. Therefore, training in this comprehensive process is also a resource of the CCGS. Specific training product and process objectives[1] are the foundation of the staff development program. These objectives enable school personnel to work through the comprehensive planning process step-by-step, and are specific enough to enable them to achieve measurable results. The ultimate outcome which is desired from this planning is a constantly improving guidance system that helps each youth fulfill his needs in the best way possible.

Materials and Procedures

The final product of the CCGS consists of materials and procedures which assist program planners as they work through the comprehensive planning process to develop, implement, revise, and improve a local guidance system. This group of resources includes:

1. a computer supported "needs" assessment procedure. This procedure obtains information from youth and adults concerning youth-oriented objectives upon which guidance programs can be designed. It assesses the outcome or end results that are desired for youth (i.e., their "desired status").

2. sample areas of student needs which guidance programs may address. These represent clusters of objectives which were derived from student needs data collected during several field tests of this guidance system.

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[1] *A product objective describes the outcome of the training (what skills trainees will learn); a process objective describes how trainees will learn each skill (what activities each trainee will experience).*

3. a list of behavioral objectives. This collection of objectives may be reviewed by program planners as they translate general statements (derived from the needs assessment data) into measurable behavioral objectives for youth.

4. a compilation of strategies for assisting youth to achieve objectives developed for guidance programs.

5. an approach that facilitates computer monitoring of the progress youth make toward achieving their guidance objectives.

6. strategies for using evaluation data to revise and improve guidance programs and units.

In addition, this third type of product includes guidance programs which have been designed for student use in various field test settings. These programs are of two types, developmental and prescriptive. Developmental programs focus on preventative guidance and positive mental health; they provide a core of continuous, sequential learning activities for all students. Prescriptive programs focus on learning activities that are designed for students or groups of students who are experiencing specific individual problems. Some of the present CCGS programs have been developed for, and field tested with, two different student populations. Other programs are still at the design stage. At present, the five programs are the:

1. Educational-Vocational Development Program

2. Program for Effective Personal Problem Solving

3. Personal and Social Development Program

4. Effective Student Learning Program (outlined only)

5. Social Responsibility Development Program (outlined only)

Ninety-three student units make up these programs. Each unit contains:

1. a statement of the unit's general purpose written for youth;

2. behavioral objectives that refine and operationalize the general purpose statement;

3. strategies to be employed with youth to help them achieve the objectives; and

4. evaluation instruments and procedures for measuring student performance relevant to unit objectives.

Where possible and desirable, the units incorporate available resources to help youth achieve their objectives. Rounding out the list of CCGS resources in this third category of products are instruments for program evaluation in terms of desired and unexpected outcomes, and scoring and analysis procedures for these instruments.

Field Test Settings and Improvements

Portions of the CCGS have been field tested in three sites: Booker T. Washington Junior-Senior High School, Houston, Texas; John Muir Junior High School, San Jose, California; and Pioneer High School, also in San Jose, California. The two California schools serve essentially a middle class population with a small population of minority (Black, Oriental, and Mexican-American) students. The Texas school draws its students mainly from Black families in one area of Houston. In general, these families are not severely economically deprived.

In designing and field testing elements of the system, attention was directed at developing solutions to typical school problems such as the three reflected by the student statements quoted at the beginning of this chapter. The following descriptions of selected segments of the CCGS demonstrate this guidance system's responses to each of these issues. In addition, these descriptions illustrate the way specifically tailored programs were designed and implemented in the field test settings.

> *"All my counselor has ever done for me is to change my schedule and fix my computer registration cards."*

In the Houston field test site, a Guidance Resource Center staffed by a paraprofessional was used to relieve counselors from some of the stresses of the "maintenance syndrome" and to insure that the implementation of the new career guidance system did not add to the syndrome. A central classroom in the Booker T. Washington Junior-Senior High School was selected for the Center. It was then equipped with CCGS individualized student learning units, tests, and support materials. Areas of the Center were designated for individual and small group work.

The key link in student use of this Center was the paraprofessional who designed and maintained it. Her special characteristics of motivation, rapport with students, and administrative capability provided the Center with important basic ingredients for promoting youth development.

First, she assisted counselors and teachers with both the field test and the school's innovative approach to scheduling classes. Her services enabled students to have access to the Center as individuals or in small or large groups. This flexibility meshed well with students'

classroom activities in the basic subject areas and with their free time. In addition, her services helped counselors and teachers maintain awareness of the progress of the Center's activities and react to materials and procedures used in the Center.

Second, the paraprofessional scheduled, organized, and supervised all student activities in the Center. Her primary supervision tasks were: helping students work through units and take personal assessment and proficiency tests; scoring these tests; reporting test results back to students; facilitating student progress in setting long-range and short-range goals based on unit and test results; conducting group discussions; and coordinating teacher and counselor work in the Center. Her scheduling and organizing responsibilities were composed primarily of assuring that learning materials and equipment were available when needed by students as they worked through the individualized learning units.

Third, in her remaining time, the paraprofessional alleviated counselors of their clerical chores, especially those mundane tasks arising from a district-wide computerized data processing system. By performing this service, she gave counselors more time to participate in individual and group counseling activities with students and to assist student career planning experiences that were stimulated by the Center.

> *"My counselor only has time to see students who get in trouble. I've talked to him only once in two years."*

One of the major CCGS field test programs was the Personal and Social Development Program (PSDP) which provides counseling personnel with an opportunity to work with <u>all</u> students in the area of their personal and social behavior The PSDP has two parts: a developmental phase in which all students participate, and a prescriptive phase for those students who desire assistance with specific areas of their personal and social behavior. The first PSDP phase attempts to create a general awareness of personal and social behavior by introducing all students to general types of behavior and to the concepts that behavior is learned and can be changed, if desired. Students are also helped to assess their own behavioral skills.

In the second PSDP phase, students are assisted to make changes in their behavior by learning about and implementing basic behavior modification principles. A behavior change may require an extinction of a negative behavior or an increase in the frequency of a positive one. Consequently, students with a desire to improve themselves, along with students who are exhibiting more disruptive behavior patterns, are assisted. The comprehensive guidance program is not dependent on counselor availability. Youth can receive assistance from other counseling personnel right in their classrooms as was the case in the Pioneer High School field test. This assistance can also be made available in periodic group sessions. Between these sessions, students may continue with self-directed learning experiences to facilitate their intrapersonal and interpersonal development. This approach helps to alleviate some of the crisis orientation with which some counselors are inundated.

"Why should I study English? I want to be an engineer, not a poet."

In an attempt to help youth correlate their academic studies with their present and future lives and goals, the 1971-72 San Jose Unified Educational-Vocational Development Program was designed to enable ninth- and tenth-grade students to assess their own personal characteristics, study the world of career opportunities, and set tentative long-range vocational and educational goals. This program enabled youth to work out functional relationships between these personal goals and their subsequent educational activities.

The Educational-Vocational Development Program can be implemented in a variety of ways. At the ninth-grade level (John Muir Junior High School), it was offered as a one-quarter optional course within the school's ninth-grade social studies curriculum. At the tenth-grade level (Pioneer Senior High School), the Educational-Vocational Development Program was implemented as a guidance course required of all tenth-grade students (approximately 660 individuals). The teachers who were chosen to implement the educational-vocational guidance programs at both the junior and senior high schools were experienced social studies instructors, who had expressed interest in individualizing education and had previously moved toward doing so in their classrooms. They participated in a brief in-service training workshop for the purpose of refining and acquiring necessary implementation skills.

Counselors participated in the program by validating: (1) student assessment of self-perceived and measured personal characteristics, and (2) student-parent selection of tentative long-range goals that were based on this assessment as well as on knowledge of occupational families and their requirements. In addition, counselors assisted students in planning a high school program of courses related to the known requirements of their tentatively selected long-range goals. Thus, the counselors were involved in students' classroom activities (career and educational planning) and also helped students to relate their upcoming high school studies to their tentative life goals.

Summary of CCGS Field Test Results

Field tests in schools in schools in San Jose, California, and Houston, Texas produced the following general results. These results are presented in more detail in Chapter IV (beginning on page 77) and in the Appendix to this document.

1. The 1971-72 San Jose Unified Educational-Vocational Development Program significantly influenced youth career development (compared to the development of youth in control groups both in the same schools and in control schools) in the following ways.

a. Ninth- and tenth-grade students who had experienced the program were more able to identify what decisions must be made by every student during his high school years, and the choice points when the decisions should be made.

b. Ninth- and tenth-grade students who had experienced the program were more able to list ways in which job trend information can be obtained and to explain the importance of such information for youth when they are considering alternative long-range vocational goals and plans.

c. Ninth- and tenth-grade students who had experienced the program were more able to understand a long-range goal system for classifying vocational opportunities.

d. Ninth- and tenth-grade students who had experienced the program were more able to show that they had collected information on their abilities, interests, and values, as well as to describe data on their abilities.

e. Tenth-grade students who had experienced the program were more able to describe and provide support for information they had collected on their abilities, interests, values, and physical traits as well as to demonstrate their understanding of this information during a conference with at least one school staff member who knew them well.

f. Tenth-grade students who had experienced the program were more able to select first- and second-choice tentative long-range vocational goals as well as set school plans for reaching these goals.

2. The 1971-72 Booker T. Washington Junior-Senior High (Houston) Orientation Program significantly helped youth in the ways listed below (compared to outcomes achieved by control group youth in this school).

   a. Ninth-grade students who had experienced the program were more able to understand and affirm that individuals are not "trapped by the future," rather that their actions definitely can influence the course of their lives. (Seventh-grade students showed similar acceptance but were not more able than control students to recognize cause-effect relationships and distinguish between events that might have short- or long-range impact on human lives.)

   b. Seventh-grade students who had experienced the program were more able to compare different approaches (such as the "planned" and the "free-and-easy") they, and persons like them, can have toward their future.

   c. Seventh-grade students who had experienced the program were more able to understand basic concepts about the Comprehensive Career Guidance System. Both seventh and ninth

graders indicated a more positive reaction to these concepts, to education in general, and to their school (BTW) in particular than did control students from this same school.

3. The 1971-72 Booker T. Washington Junior-Senior High (Houston) Personal Assessment Program significantly influenced youth to develop in the following ways (compared to the performance of control students attending Booker T. Washington and a comparable school).

   a. Seventh- and ninth-grade students who had experienced the program were more able to understand that information about their personal characteristics can help them set their vocational goals and that over a time period their personal characteristics may change, making it important to consider these changes in their planning. (Some of the test items related to this objective were confusing to students. Therefore, this result should be considered tentative.)

   b. Seventh-grade students who had experienced the program were more able to collect and organize information on their abilities, interests, and values, as well as to demonstrate, during conferences with their parents, that they understood this information.

   c. Ninth-grade students who had experienced the program were more able to collect and organize information on their abilities, interests, and values as well as to demonstrate their understanding of this information during a conference with at least one school staff member who knew them well.

4. The preliminary field test of two (of six) parts of the 1971 San Jose Unified Effective Personal Problem Solving Program produced evidence which showed that eleventh- and twelfth-grade youth believed they could influence what happened in their lives, wanted to solve personal problems better, and felt they could learn problem-solving skills.

5. The 1971-72 San Jose Unified Personal and Social Development Program was investigated in a study involving experimental and control students in the same school and control students in a comparable school. This program did not produce program effects that were statistically significant. However, there were data trends which supported the desired impact.

6. There are at least three possible explanations for non-significant statistical results which occurred on additional student performance objectives in each of the first four programs above: (a) the programs were inadequate, or (b) the programs were inappropriate for experimental students who had already achieved some of the performance objectives, or (c) there was poor implementation, inadequate evaluation, etc. In future field tests of the Comprehensive Career Guidance System, data analyses will be conducted to determine which of these explanations seem most tenable.

Conclusions and Recommendations

CCGS field tests produced the following four conclusions and related recommendations. Field test results, conclusions, and recommendations are discussed in more detail in Chapters IV and V of this document. Specific designs, procedures, and data from the field test are reported in a separate *Appendix: Technical Report of Evaluation Results and Conclusions.*

The first conclusion that resulted from the field test is that it is possible to help youth to become independent, responsible, motivated learners who can learn to make personally-appropriate choices (i.e., to select their goals wisely) and to direct their efforts toward achieving their goals. The majority of youth and adults who were involved in CCGS activities seemed to accept the basic premise that when a person has learned how to make decisions, has participated in selecting a personal goal, and has directed his behavior toward achieving it, he has engaged in a meaningful and satisfying human activity.

Recommendation

Guidance programs should help youth both to develop personal problem-solving skills for the process of career (i.e., life) choice and development, and to actually make tentative "career" choices. Such programs should prepare youth for participating in personal goal selection as well as for self-management of behavior toward achieving personal goals.

The second conclusion is that procedures are available for delineating career goals and linking these goals to instructional and counseling objectives. These procedures enable counseling personnel and youth to cooperate in setting goals which reflect youth and adult perceptions of youth needs and in stating goals in terms of measurable outcomes. The procedures are appropriate for large numbers of youth with similar needs and for individuals with unique needs. The results of these procedures are the goals and objectives which counseling personnel must then agree to help youth achieve.

Recommendation

Counseling personnel should devote more effort to helping youth state instructional and counseling goals and related measurable objectives. This goal-setting activity should be a cooperative venture so youth may participate in selecting goals and objectives,

and in setting the order of priorities in which guidance resources will be committed until these ends are achieved or revised.

The third conclusion is that the CCGS systematic planning model and process is a feasible and desirable planning approach, especially for those school personnel who do not now have a comprehensive approach to program planning. The use of the planning model and process allows schools and districts to plan guidance programs based on youth needs and characteristics. In addition, it enables them to implement and evaluate these programs using youth needs as a standard. The planning activities yield products such as:

1. a series of goal statements ordered in terms of priority youth needs and school system constraints;

2. measurable performance objectives for each goal statement;

3. related instructional and counseling strategies for helping youth achieve each objective; and

4. evaluation procedures and instruments which will provide data to facilitiate program improvement and to assess program impact.

Recommendation

Schools and districts should carefully examine the CCGS planning model and process, and compare it to other current approaches to program planning and evaluation. Those examining this system should: (1) allot time for staff and students to adapt all or part of the comprehensive career guidance process to the local situation, (2) train such persons to use this process, and (3) provide them with the opportunity to employ it, and to implement and evaluate the results of its use.

The fourth conclusion is that procedures and instruments are available for evaluating guidance programs. Using such resources, entire schools and districts can develop and employ accountability procedures based on the needs of their youth target populations. Youth needs are defined in terms of objectives for measurable changes in the knowledge, attitudes, and overt behavior of youth. Within this context, it is possible to determine whether youth achieve the desired objectives of a program and what unanticipated side effects result from the program. This information allows counseling personnel to be held accountable for applying guidance resources to actually satisfy the pressing needs of their youth target populations. The CCGS approach to evaluation facilitates both continued improvement of programs and cost-benefit analyses of the programs.

Recommendation

Students' perceptions of their needs should be integrated with adults' perceptions of youth needs and the results of this integration should be used to reorient guidance systems (and, therefore, the total educational structure) to meet the needs of those individuals they should serve--youth. Schools and districts should devote more attention and resources to the evaluation of guidance programs and services, and these evaluations should determine program accountability and assist in program improvement.

The final conclusion indicates that although this Comprehensive Career Guidance System was originally designed for individualized educational settings, its planning process, student materials and procedures, and staff training resources are applicable to a wide range of more conventional settings. In fact, settings in which parts of this system were field tested included only preliminary aspects of individualization. In order for these parts to function within such settings, these resources had to be modified. However, the introduction of innovative guidance programs seemed to stimulate personnel from the field test schools to work toward more individualization throughout the curriculum.

Recommendation

School personnel dedicated to promoting the individualization of educational opportunities should seriously consider beginning with the implementation of youth career planning and development activities in an individualized guidance system. A core of effective individual planning procedures for youth should be used to stimulate innovations in traditional instructional patterns. When a cadre of students is helped to plan and set tentative long-range and intermediate goals, a school will come under pressure to furnish curriculum opportunities that can be tailored to the widely varying goals of the students.

Further Information on CCGS

The rationale for the development of the CCGS is presented in Jones, G. B., Nelson, D. E., Ganschow, L. H., & Hamilton, J. A. Development and Evaluation of a Comprehensive Career Guidance System (Final Report of Project OE 7-0109, United States Department of Health, Education, and Welfare, Office of Education, Basic Studies Branch, Division of Comprehensive and Vocational Education Research. January 1971). The reader who wishes to pursue these topics in greater detail should especially note the following topics and pages in the earlier document:

1. the six assumptions that are basic to the system, pp. 13-20;

2. the discussion of the reliance of the system on measurable objectives, pp. 11-13;

3. a more complete discussion of the CCGS planning process than is presented here, a review of the literature pertinent to the development of guidance systems, and a glossary of major terms used to describe the system, pp. 21-49 and pp. 1-10;

4. an outline of the 12 types of activities that will ultimately comprise the complete CCGS, p. V. These activities are organized into two general categories: direct interventions--learning activities employed directly with students; and indirect interventions--activities implemented on behalf of students in the school and community; and

5. a summary of possible indirect interventions, pp. 195-206. Since the focus of the present document is on programs and units in which youth participate, the indirect strategies are not discussed here.

This document may be obtained from Educational Resources Information Center (ERIC): ERIC #ED-055-310. The cost is $.65 for microfiche or $9.87 for hard copy.

Chapter I Training Objectives

This chapter was designed to enable each reader to:

1. recognize the two main purposes of CCGS and its three main types of products.

2. explain at least 10 key concepts which describe the CCGS, provide one specific example of each concept, and contrast that with what occurs in conventional guidance systems.

3. list the five phases of the planning process for developing, implementing, and evaluating comprehensive guidance systems.

4. list at least four program planning resources that resulted from applying various stages of the planning process with youth in specific school settings.

5. list the three products designed for student use and describe the four components of each individualized student learning unit.

6. summarize how the products can be used in "formative evaluation" which will help improve any operating CCGS program.

7. describe how improvements implemented in each of three field test settings address typical problems faced by guidance personnel.

8. summarize five conclusions which have been made from the field tests, list at least one recommendation based on each conclusion, and illustrate (with a practical example) how by using each recommendation the reader can improve school based guidance activities.

If, after reading Chapter I, the reader is not able to accomplish these eight objectives, he should review the pertinent sections of the chapter.

CHAPTER II

Needs Assessment, Goal Statements, & Performance Objectives

The Need for Needs-Assessment

Counselors are present in schools for the stated purpose of meeting youth guidance needs. Yet rarely can counselors document the needs they are addressing. The first phase of the comprehensive planning process introduced in Chapter I includes needs-assessment, because it is our contention that many counseling and guidance efforts are misdirected. To be effective and have an impact on the lives of students, counselors must direct their efforts toward the actual needs of youth. And, in order to determine youth needs, a valid assessment must be conducted.

In this document, a "need" is defined as the discrepancy between a student's current and desired status. This concept of need does not carry perjorative connotations of an ill to be remedied but rather indicates the direction in which that student wants to move. Therefore, needs-assessment should appraise where youth are rather than where the system is. System-oriented needs refer to institutional or organizational requirements such as the need for more counselors. While these are important, their consideration is premature at this juncture. System needs become relevant when consideration is given to how student needs will be met.

The primary purpose of needs-assessment is to provide the base and justification for all subsequent guidance activities. It provides direction for planning activities and allows for the establishment of priorities among various possible desired outcomes and related tasks. It also produces the criteria for evaluating whether the system functions as intended.

A Two-Phased Needs-Assessment

First Phase

The first phase of CCGS needs-assessment was undertaken several years ago and is well documented in the CCGS report referenced in Chapter I. In this phase, a nationwide survey and search was conducted to find the boundaries of a comprehensive guidance system, and to find bases for organizing the broad variety of student guidance needs. Using a survey of the literature and content analyses of available guidance programs, this phase led to the identification of the guidance needs of youth across the country. These needs were categorized into six student-centered areas which should be addressed by any comprehensive guidance system. These six are:

1. vocational planning needs
2. educational planning needs
3. learning-how-to-learn needs
4. personal-social needs
5. social responsibility needs
6. leisure needs

It can be seen that "vocational planning" needs constitute only part of the Comprehensive Career Guidance System emphasis, in which "career" is virtually synonymous with "life." "Educational planning" needs relate to the directions a student wishes to pursue in education apart from the educational requirements for his chosen vocational field. "Learning-how-to-learn" needs, on the other hand, refer to skills which enable an individual to acquire knowledge or, in essence, learn. These include the skills of reading, listening, notetaking, and more. "Social responsibility" needs are broader than the social needs referred to in the personal-social area. The former are needs concerned with being an effective citizen and member of society, while the latter refer to needs related to interacting with persons in small groups. "Leisure" needs refer to the desire to structure or plan the use of free time.

In addition to the six areas of youth guidance needs, some categories of general "activities" which a guidance system should provide for youth were formulated. They are of two types: (a) "direct interventions," which are activities affecting students directly, and (b) "indirect interventions," which are services provided on behalf of students by influencing their surroundings. The direct intervention activities were organized in light of the model for personal problem-solving described in Chapter I. Major categories of these individual planning, goal-setting, and self-management skills are displayed in the diagram below.

SUMMARY OF PERSONAL PROBLEM-SOLVING SKILLS

Planning Emphasis:	Perceiving and defining problem
	Gathering and evaluating information
Decision Making Emphasis:	Considering multiple alternatives and their related consequences
	Selecting alternate solutions and plans
Implementing/Managing Emphasis:	Implementing plans
	Analyzing the product and process of problem solving

Two general types of direct interventions were outlined. There are those which are beneficial for all students--that is, they meet developmental needs. Secondly, there are prescriptive activities--ones which not all students must experience, but which still must be offered by a comprehensive system. Indirect interventions consist of changes in the school and community which will both foster students' individual development, and rid the environment of unnecessary blocks to student development. The chart on the next page delineates the 12 types of direct and indirect interventions which were determined in this first phase of needs-assessment.

Second Phase

The first phase of needs-assessment defined the scope of the CCGS. Seldom, however, does one school or district embrace the entire domain. Typically, there are various parts of the domain which are irrelevant to a particular student target population. The next step in the planning process is to identify the highest priority need areas of students within a particular school or district.

DIRECT INTERVENTIONS

(Learning Activities Employed Directly with Students)

Developmental Activities

1. Orientation-in
   orienting students for a new educational level, a new educational system such as individualized education, an innovative guidance program, or a new specific school setting.
2. Personal Assessment
   helping students understand and develop their own abilities, interests, physical attributes, personal and social behaviors, and values and preferences related to available career opportunities in each of the six areas of behavior.
3. Personal Choice Opportunities
   assisting students to consider options available in each of the six areas of behavior--the career need areas.
4. Personal Problem-Solving Skills
   enabling students to make decisions and plans wisely and to implement these so as to use personal assessment and personal choice opportunities information in each of the six areas of behavior.
5. Formulating and Pursuing Personal Goals
   so that each student will be assisted to formulate and to pursue his goals and his plans for achieving these goals in each of the six areas of behavior.

Prescriptive Activities

6. Within-school Learning Experiences
   working with a student or group of students experiencing learning, intra-personal and interpersonal problems or an idiosyncratic problem occurring in the six areas of behavior.
7. Orientation-out Prescribed Learning Experiences
   providing prescribed learning experiences for student problems occurring at times such as when they are entering the world of work, dropping out without specific plans, enlisting in the military.

INDIRECT INTERVENTIONS

(Services Provided on Behalf of Students)

Interventions implemented through providing assistance to assess and possibly to modify:

8. aspects of the educational setting and system
9. school personnel
10. home and neighborhood factors
11. community resources (e.g., health, social, and welfare agencies, businesses and industries)

Interventions implemented through:

12. guidance-related research and evaluation--experimentally controlled studies of guidance and counseling materials and procedures, follow-up studies, and analyses of changes in the characteristics and needs of the student population.

Needs-assessment within a particular setting must consider both the desired and current status of students' development and their career planning. The desired status assessment describes the direction in which students would like to go, while the current status assessment indicates how much distance they need to travel in order to get there. Two students who both want to achieve the same end will require different guidance programs if their present levels of career development differ.

The Comprehensive Career Guidance System approaches to the important task of assessing current student status include survey tests of knowledge, situational tests of current behavioral abilities, and attitude inventories. One such measurement tool developed and implemented is an Occupational Knowledge Survey which assesses students' knowledge of: the world of work; occupational families; and various occupations including the prerequisites for entering them, basic salary levels associated with them, and other factors. Data from such current status assessment instruments are then used in connection with desired status assessment data to design guidance programs for specific student target groups.

A Distinctive Needs-Assessment Strategy

Within a particular school setting, a variety of strategies are available for assessing the desired and current status of student target populations. Of the several to be discussed in this chapter, most strongly recommended is a distinctive strategy implemented at John Muir Junior High School, one of three main sites in which selected elements of the CCGS were field tested.

This strategy ascertains both from students and adults their perceptions of those parts of students' lives which are incomplete. Since students are the direct consumers of the guidance programs, their perceptions are important. However, adults such as counselors, teachers, administrators, employers, and parents can also provide valuable information on the career guidance needs of students. In this needs-assessment approach, adults are not asked to "second guess" students by reporting what ends or outcomes they think students are seeking. Rather, they are asked to utilize their experience to estimate what students need the most. Later in the chapter, alternatives for resolving discrepancies between adult and student perceptions of youth needs will be discussed.

In this recommended needs-assessment approach, data are kept anonymous and confidential. This encourages individuals to be open about their feelings. The only personal information gathered from

each participating individual is biographical, including: age (for students only), sex, ethnic background, grade, and position (for adults only). These biographical data are collected so that needs information can be analyzed by subgroups of the target populations.

At this level of program development, the primary purpose of this needs-assessment strategy is to furnish an empirical base for deciding which guidance programs to emphasize in a particular school setting and not to diagnose the career planning and development needs of individual youth. This approach assumes that there are some common priority needs within the target population which can be met through coordinated planning. Thus, the total target population is randomly sampled; no attempt is made to assess every member in that population. Various alternatives are used such as sampling within grades and by individuals or across grade levels by classes. This does not diminish the importance of individual, idiosyncratic needs, for they are treated later in the planning process. This first step provides the base for priority program planning and encourages a planned developmental, rather than a crisis-oriented or "be-everything-to-all-people" approach to guidance systems.

Field tests of this distinctive strategy have emphasized assessment of youth needs in four of the six life areas outlined earlier in this chapter. Assessment materials in the other two areas (Social Responsibility and Leisure) are currently under development. For each area, a list of possible need statements was developed on the basis of data obtained during the first phase of need-assessment. Each need statement, written on a separate card, describes a level of personal functioning for which a given youth might feel a need to strive. A deck of cards for each life area is developed for youth and adult reactions. This card format allows respondents to consider and make decisions about each individual statement rather than dealing with all statements at once. The areas surveyed, and example need statements from each, follow.

Effective Student Learning Needs

I need to read faster.

I need to be more comfortable when giving information or speaking in class.

I need to understand how I am progressing in each class and how I can improve my work.

I need to be less nervous when taking exams or tests.

Vocational-Educational Planning Needs

(Included are those educational planning needs which relate directly to vocational planning.)

I need to know what various jobs are like and how my special talents and interests will help me do these jobs.

I need to know what I can do now to prepare for work that I want to do in the future.

I need to develop plans which will help me reach my educational and occupational goals.

I need to know how to perform well on job applications and in interviews.

Since so many need statements were generated for the Personal-Social life area, this area was broken down into two sub-areas: intrapersonal and interpersonal.

Intrapersonal Needs

I need to get in touch with my feelings and understand how feelings affect my behavior.

I need to "let go" more--to have more fun.

I need a more constructive way to express anger.

I need to increase my ability to keep my promises.

Interpersonal Needs

I need to know the things about me that "bug" others.

I need to be a more sharing and trusting person with others.

I need to speak up for myself more--to be more assertive when the occasion demands.

I need to better solve problems I have with my parents.

For the purpose of obtaining adult reactions, each statement was rephrased so that it began: "Students need...." The available list

of need statements is "expandable" in that youth and adults may write original need statements on blank cards and add them to those presented in the decks of cards.

Implementing the Strategy

The first implementation step is to have each list of need statements validated by counseling personnel and selected students at the specific settings. Counseling personnel should assess the objectives of their current efforts and make certain that need statements related to these objectives are contained in the lists. If they are absent, additions to the lists should be made. One technique for getting at these objectives, if this task proves to be difficult, is for counselors to look at their daily activities and determine toward what aims these are directed. If counselors have been devoting a great deal of time and effort to special guidance programs, inserting statements related to the needs which these programs address provides the counselors with an opportunity to validate their current efforts against what students feel they need. Additionally, counselors may wish to delete some items which do not apply to certain target populations. The selected students are especially helpful in testing the wording and clarity of the need statements.

The next step is to train a group of individuals in the orientation and interviewing procedures. The interviewers may be school personnel, non-school assistants (e.g., housewives or college students), or capable students. All students selected to participate in the assessment receive an in-class orientation, while all participating adults receive written orientation materials. After completing his training, each interviewer works with several adult or student groups of five to eight people. In these interviews, each interviewee examines four separate decks of cards on which statements of the guidance needs are printed.

The interview consists of several rounds of sorting through the decks of cards. For each deck the interviewee selects the five "needs" which are most important to him and then indicates with which of these he wants immediate assistance. This latter indication is especially important because it pinpoints needs which should receive priority attention in program planning. To provide further information in deciding which areas to emphasize, students are asked to consider their five top choices in all four areas (for a maximum total of 20 needs) and then to select the top eight. Students may select their five needs from any one area and none from another if they desire. This then provides information for establishing priorities among the areas themselves.

As was indicated earlier, each interviewee has the opportunity to use blank cards to write down "needs" he has (or adults feel youth have) but which are not covered in any of the four decks of cards. These statements are incorporated into subsequent versions of the decks and help to continually update and revise the procedures. At the conclusion of the card sorting procedures, each interviewee is given the opportunity to write down (or tell the interviewer, which is the typical procedure when younger students are being interviewed): (a) suggestions he has for additional need areas which are not covered; (b) comments on current and possible future guidance services in schools, and (c) reactions he has regarding the manner in which his perceptions were collected.

The attempt to get open-ended responses from interviewees can be very productive. For example, the following comment recorded by a ninth-grade girl indicates that this needs assessment procedure can have both motivational and educational effects on students:

> *"I liked doing this because I can show you what I want and what I need now. Some of those cards also gave me ideas of what I might want to do in the future."*

The comment of one parent of a ninth-grade student indicates the public relations impact of this strategy:

> *"I'm very happy to learn of this type of study. The basic R's are still important but the student is part of the real world, too. Too many people plod through life for a paycheck, without appreciating or even liking their job. Some people do not know how to think and reach logical conclusions. Emphasis needs to be given to the real world and opportunities available to them."*

These statements are representative of the vast number of comments received from students and adults. Interviewers' observations are also collected in order to improve the efficiency and effectiveness of the procedure.

Two types of data result from these procedures. The first type of data results from the cards which were selected as the top five

choices of students and adults. These data are recorded on information sheets by the interviewers, and then are keypunched and analyzed by computer. Tabulations are computed for the total student and adult samples as well as for various subgroups for which a school's or district's program planners desire to have data summaries. The computer program written especially for this strategy produces a rank ordering of statements in each of the four areas according to how often each need statement is selected as a first choice need, how often it is chosen as one of the top five needs, and how often it is chosen as one of the top five with weight being given to the position at which it is chosen. The second type of data is the more subjective data obtained from the open-ended comments. These can provide information on unanticipated outcomes of guidance programs and of this needs-assessment strategy, and is especially useful in revising the strategy itself.

Alternative Needs-Assessment Strategies

Variations of the small-group, card-sorting procedures have also been tried. One alternative is using the card-sorting procedure in an individual setting with one interviewee for each interviewer. While leading to a more personal atmosphere, it is also more time consuming and thus more expensive. A second variation uses checklists with all need statements in a career area printed on them instead of on separate cards. This is faster and less expensive, making it possible to assess many more individuals at one time. However, it is also much more cumbersome and difficult for interviewees. Instead of being able to make decisions about individual need statements and place the cards in various piles, the interviewee, in essence, must work with all statements at once.

Where time and circumstances do not permit one of the above approaches in which youth perceptions of their own needs are gathered, alternate needs assessment approaches must be explored. For example, in the Pioneer Senior High School setting, a conference was held involving selected teachers, counselors, and administrators. Based on their experience at the school, these individuals made "educated guesses" about the needs of their tenth-grade students. The following is an example of one of the first lists of very general student needs which was generated at the Pioneer needs-assessment workshop and which was later used for program design purposes:

1. *Students need to know a problem-solving technique and how to apply it.*

2. *Students need the opportunity to explore possible alternatives for their decisions.*

3. *Students need to know more about vocations.*

4. *Students need to know how to obtain vocational information.*

5. *Students need a personal set of values.*

6. *Students need to understand the responsibilities and consequences of group membership.*

7. *Students need to understand other people's viewpoints.*

8. *Students need to handle anger and other uncomfortable emotions constructively.*

At Booker T. Washington (BTW) Junior-Senior High School in Houston, Texas, a workshop involving the school's administrative and guidance personnel was held prior to the initiation of the CCGS field test. Major emphasis was given to determining adults' perceptions of the guidance-related needs of BTW students. This was accomplished primarily through a review of the characteristics of current students and from the professional opinions of these school staff members. While these latter techniques may not be as desirable as the student-involved approach described earlier, they do still produce information which can be used constructively in the design and evaluation of career guidance programs.

By incorporating the elements described above, the needs assessment procedure attempts to avoid the deficiencies of the more traditional needs assessment techniques. These deficiencies include: emphasizing the "means" rather than the "ends" of career guidance programs; using data gathered from individuals after they have left school, which is usually of an abstract nature and without specific program implications; or questioning youth about their complaints rather than identifying the positive directions in which they wish to move. The essential difficulty of most of these traditional approaches to the assessment of student needs is that they do not expedite the development of guidance programs by suggesting positive directions which can be used to draft measurable objectives for student development.

Task Force Use of the Data

Once the data on the needs of youth target populations have been collected, task forces made up of teachers, students, counselors, and administrators can begin to work with the results. A number of task forces may be established; for example, one task force for each grade level surveyed. A major purpose of these task forces is to get relevant school personnel and students to use the data and to participate

in decisions about student needs which provide the basis for guidance program planning. When data have been collected through this approach, these task forces identify the highest ranked "needs" and the "needs for which immediate help is required" as reported both by adults and youth. Where discrepancies occur between the youth and adult data, strategies for reconciling these differences must be established. These strategies will differ from school to school depending on how much weight task forces afford to each of the sources and how much reliability is estimated for the data collection process implemented with each source. Counselor and teacher knowledge of students can play an important part in the process of resolving data discrepancies. Some unanticipated results in the assessment procedures might also indicate strategies which can be used in resolving student-adult differences in perceptions. For example, if a great many students at one grade level indicate that they had difficulty understanding the need statements, more weight might have to be placed on the adult data for that grade level. Or, if the sample of responding adults for a given grade level is significantly smaller than the student sample, the student data might have to be weighted more heavily.

For each area surveyed, the task force identifies the five to ten highest priority "needs" and "needs for which immediate help is required." To determine which areas should receive priority attention, the "needs across four areas" data, described earlier, are used. These results serve as the focus of guidance program planning in the particular setting. Data on the lowest priority "needs" are also considered by the task forces, for they indicate areas which should be deemphasized. When approaches other than the recommended CCGS needs-assessment strategy are used, counselor and teacher expertise usually are the major source of these priorities.

Using Student Needs Data To Design Guidance Programs

The first step after the identification of priority needs in each area and across the four areas is to translate these need statements into statements of student goals. This involves a very simple procedure of changing the need statement from "I need" or "Students need" to "The student will be able to...." For example, if "I need to be able to ride a bicycle" happened to be a high priority need, this could be translated into the following goal statement: "The student will be able to ride a bicycle." It often is desirable to divide the statement into two or more fairly specific goal statements. At the conclusion of the chapter, some of the goal statements which were written by task forces in the field test settings are presented. Although their complexity and specificity may vary, goal statements should be written--they are ever present reminders of the purposes for which each guidance program is designed.

Writing goal statements leads to the second and more difficult task of writing "performance objectives" for each goal statement. These objectives incorporate descriptions of the things which will indicate exactly when a student has achieved a goal. To write a performance objective, program planners must answer the question: What acts should a student be able to perform as evidence that the goal has been reached? Such "acts" require a performance which demonstrates a skill, a knowledge, or an attitude. To be understandable, the conditions (that is, given what resources or cues) under which the student will be asked to perform these acts must be explicit, and the amount of evidence required (how many times, what percent of the time, how often) must be stated. A performance objective, thus, tells the student what he should be able to do, under what conditions, and how much or how often he should be able to do it. In writing these performance objectives, a task force may decide to review data banks of available objectives.

Below is a sample specific goal statement and its related performance objectives, developed by a task force of individuals from the San Jose Unified School District. It is one of a series of goal statements derived from the high priority need, "I need to know what jobs might be available to me in the future." All groups of related goals and objectives must be systematically sequenced. A recommended sequence begins with youth collecting and comprehending relevant information (as indicated in the two objectives below), synthesizing information from diverse sources while making decisions based on this integration, and acting on the basis of these decisions. Such a sequence involves specific skills delineated for each of the three personal problem-solving areas (planning, decision making, and implementing-evaluating-revising decisions) introduced on page 8 of Chapter I and outlined on page 25 of this chapter. This sequence has been used to organize all units and programs in the Comprehensive Career Guidance System.

Goal Statements

To understand ways in which the availability and/or desirability of vocational opportunities are being influenced by trends resulting from social, economic, and technological factors.

Performance Objectives

1. *To identify the correct definitions of at least three of the following terms:*

   a. *trend*
   b. *social factors*
   c. *economic factors*
   d. *technological factors*

2. *Given examples of factors which are affecting job opportunities, to identify correctly in at least three of five cases whether they are social, economic, or technological factors.*

3. *Given examples of social, economic, and technological factors, to identify correctly in at least three of five cases their impact upon job opportunities in particular occupational areas.*

4. *To list three ways in which current information on job trends can be obtained.*

5. *To explain at least one reason why projected job opportunities are important for a student when he is in the process of setting long-range vocational goals and making plans to achieve them.*

Such performance objectives will serve as the primary guidelines for all subsequent planning activities. The goal statements and related performance objectives are also easily used for evaluation purposes, as will be described in detail in later chapters.

Each task force should devote some time to examining the goal statements and even performance objectives for commonalities or logical relationships. Related goals or objectives can be clustered to form possible subprograms within an entire guidance program. In such a case, each task force should also set priorities for these subprograms, in the event that it is not possible to initiate them all at once.

If separate task forces have been working with the needs assessment data and have arrived at goal statements and performance objectives for separate grade levels, or groups of grades, some exchange must take place among the various task forces in order to obtain a flow or "developmental sequence" from the elementary grades through junior high and into senior high school. If two grade levels have identified the same top priority need, decisions will have to be made about exactly where this need would be most appropriately addressed. Within a school district, the optimal condition of a developmental guidance system is to have a smooth flow of guidance programs across the various grade levels to preclude duplication.

Goal Statements from CCGS Field Test Sites

This chapter concludes with sample goal statements stated by task forces in each of the three field test sites. Goal statements are grouped according to the programs field tested in each site. These statements are the results of the needs assessments and related procedures described earlier in this chapter. While performance objectives were also developed in each case, in the interests of space, only the goal statements are presented here.

The 1971-72 San Jose Unified Educational-Vocational Development Program

1. Students will be able to understand that this individualized Vocational Guidance Program is designed to help them set up their own vocational and school goals as well as plans for achieving them, and to know the major goals of this program.

2. Students will be able to identify important decisions and the points in time when it is probably best to make them; and to recognize that if the decisions are made then, they will probably open a maximum number of opportunities for them.

3. Students will be able to understand some ways in which the availability and/or desirability of vocational opportunities are being influenced by trends resulting from social, economic, and technological factors.

4. Students will be able to recognize the importance of grouping occupations according to things they have in common, and understand the Long Range Goal (LRG) system of grouping occupations.

5. Students will be able to understand that information about their personal characteristics can help them set their vocational goals, and that over time their personal characteristics may change, making it important to consider these changes in their planning.

6. Students will be able to collect and organize information about their abilities, interests, values, physical traits, and personal and social behavior which can affect their choices of school and vocational goals.

7. Students will be able to explore three LRG's in depth and to consider them as their own possible long-range vocational goals.

8. Students will be able to pick their first and second choice tentative long-range vocational goals, and plan a high school program to help them reach these goals.

The 1971-72 San Jose Unified Personal and Social Development Program

1. Students will be able to improve their attitude, knowledge, and behavior in the area of acting constructively in difficult situations.

2. Students will be able to improve their attitude, knowledge, and behavior in the area of showing strength of character and integrity.

3. Students will be able to improve their attitude, knowledge, and behavior in the area of contributing to group interests and goals.

4. Students will be able to improve their attitude, knowledge, and behavior in the area of showing consideration for the feelings of others.

5. Students will be able to improve their attitude, knowledge, and behavior in the area of showing leadership.

The 1971 San Jose Unified Effective Personal Problem Solving Program

1. Students will be able to perceive and delineate personal problems.

2. Students will be able to search for information to resolve personal problems.

The 1971-72 Booker T. Washington Junior-Senior High Orientation and Personal Assessment Programs

1. Students will be able to understand the courses offered at Booker T. Washington, to adapt to educational innovations used there, and to use resources available in the school and at home.

2. Students will be able to understand that individuals are not "trapped by the future," rather that things people do can have effects on the way their lives work out.

3. Students will be able to compare different approaches they can have toward their future.

4. Students will be able to understand basic concepts about the Comprehensive Career Guidance System.

5. Students will be able to understand that information about their personal characteristics can help them set their vocational goals, and that over time their personal characteristics may change, making it important to consider these changes in their planning.

6. Students will be able to collect and organize information about their abilities, interests, values, physical traits, and personal and social behavior which can affect their choices of school and vocational goals.

Chapter II Training Objectives

This chapter was designed to enable each reader to:

1. describe at least two benefits of doing a student needs-assessment;

2. recognize at least one way in which the two phases of a comprehensive needs-assessment differ;

3. summarize at least three aspects which make the CCGS approach to needs-assessment distinctive;

4. identify at least two alternate approaches to the needs-assessment procedures;

5. summarize the procedures for translating "desired status" data into goals statements;

6. explain at least two rules for writing performance objectives from goals statements.

If, after reading this chapter, the reader is not able to accomplish these objectives, he may wish to review the pertinent sections of the chapter.

CHAPTER III

The Development and Implementation of Guidance Programs

This chapter provides information on the instructional and counseling procedures that were investigated for possible use in CCGS field tests, the elements that make up a typical individualized student learning unit, and the tasks included in standard field test implementation schedules. In line with its training orientation, the chapter describes criteria to be used by guidance program planners in choosing instructional and counseling procedures appropriate to performance objectives. It also explains steps for program planners to follow in selecting those procedures that can be implemented from among those that are appropriate to objectives. (The behavioral objectives of the chapter are listed on page 56.)

The Development and Implementation Process

The reader has seen how the top priority youth needs in four of the six content areas were identified, and how goals and related student performance objectives were written for each of them. To briefly summarize the CCGS development and implementation process, the assessment of youth needs focused on the ways that students would like to be able to function, as perceived by both students and adults. Then, these desired levels of functioning were incorporated into personalized career guidance goals and performance objectives for each student. For the purposes of system planning and evaluation, the goals and related performance objectives of every student involved in guidance activities are, in effect, the system's product objectives. Once written, these statements of goals and objectives were grouped into programs. These programs were ranked according to which ones should be implemented first based upon: (a) the priority of the youth needs addressed by each program, and (b) the type of resources available within the school system. The balance of this chapter will detail appropriate procedures for the specification, selection, and implementation of activities and materials to help students achieve their objectives.

Specification of Possible Procedures

. The planning of activities to help students achieve a particular performance objective requires a broad survey of instructional and counseling procedures to insure that program planners do not overlook an alternative that could prove to be useful, as well as to avoid the pitfall of "reinventing the wheel" when adequate procedures already exist. A list of the procedures that were investigated for possible use in CCGS field tests is shown in the chart on the next page. While not all of these procedures are equally effective all the time, most of them are appropriate at some time.

Selection of Appropriate Procedures

Given such a broad choice of possible procedures, the question is: "How does the program planner decide which procedure to use to help students attain a particular performance objective?" To identify the instructional and counseling procedures most appropriate to each performance objective, the program planner should choose two types of techniques.

1. Techniques that enable the student to perform in a manner most closely resembling the performance called for by the objective. If the objective has been carefully developed, it will indicate what a student needs to learn or do to demonstrate satisfactory achievement. Some objectives may describe a complex skill for which students must learn a series of component behaviors, while others may adequately describe an entire skill. When the type of performance desired is clearly specified in the objective, it becomes possible to identify the general procedure or combination of procedures appropriate for reaching the objective. The general rule is: "Give the student practice in the performance he is to learn."

   For example, one performance objective might read, *Use appropriate behavior and show appropriate appearance in a personal interview.* First, the student should be taught to discriminate between appropriate and inappropriate interview

INSTRUCTIONAL AND COUNSELING PROCEDURES (STUDENT ACTIVITIES AND MATERIALS) INVESTIGATED FOR POSSIBLE USE IN CCGS FIELD TESTS

1. Reading printed materials
   a. Narrative
   b. Programmed
   c. Cartoon booklets
2. Observing
   a. Live demonstrations
      1) Peer student models
      2) Cross-age models
   b. Live dramatizations
   c. Films
   d. Film-strips
   e. Slides
   f. Video-tapes
   g. Any one/or all of the above observational media followed by guided practice supervised either by the models or by counseling personnel.
3. Listening
   a. Radio
   b. Sound recordings
      1) Records
      2) Audio-tapes
4. Interacting individually and/or in groups with:
   a. Counseling personnel
   b. Community resource persons
5. Practicing behavior under simulated conditions
   a. Simulation games
   b. Simulated work samples
   c. Role-playing
   d. Behavioral rehearsal
6. Gathering personal assessment information:
   a. Responding to instruments measuring personal characteristics.
   b. Collecting information from other people.
   c. Self-assessment activities
7. Participating in computer supported programs
8. Using on-line computer technology

appearance and behavior. For this objective, a sound film or film-strip demonstrating both acceptable and unacceptable versions of interview appearance and behavior combined with opportunities to role-play proper interview behavior with another student or counselor are more appropriate than having a discussion or reading a book.

2. Techniques that most closely resemble the conditions called for by the performance objective. If the objective has been adequately developed, it will not only suggest the major type of performance but will also suggest conditions under which performance will be expected to occur. For example, one performance objective might read, *Given two examples of oral responses from individuals, the student must be able to identify the one most representative of "showing consideration for the feelings of others."* In this instance, a form of audio instruction is appropriate because the condition specified in the objective is "Given two oral responses...."

Once a program planner has identified an array of alternative instructional and counseling procedures, he must rank them according to how likely it is that each will promote student achievement of a given objective. Information on the conditions under which students in a particular school setting learn best, including reactions from students in the key target populations, is required here.

Selection of Feasible Procedures

After the instructional and counseling procedures most suitable to desired performance have been specified, the next step is to select among them on the basis of administrative criteria. The most appropriate techniques are not always available, nor are they always practical or within a school's budget. For example, the best way for a student to learn the consequences of selecting a long-range occupational goal related to a particular occupational cluster is for him to spend six months to a year working in each of several occupations representative of that cluster. While this normally would be impractical and very costly (both in terms of a student's time and in terms of low productivity from an employer's perspective), the United States Office of Education is currently funding several prototype versions of an employer-based career education model that proposes to

design extensive job-based exploration opportunities for students. If these can be developed and implemented in a manner that will be feasible, they will be directly related to student performance learning. In the meantime, a variety of less costly simulated experiences have been designed for this purpose.

To facilitate program planning and evaluation, a planner should express the chosen instructional and counseling procedures in the form of program process objectives. A planner furnishes evidence that he has accomplished his program process objectives by detailing how he has supplied students with the program activities and materials required for them to reach their performance objectives.

Here is a list of steps for program planners to follow in selecting those procedures that can be implemented from among those that are appropriate.

1. Identify the instructional and counseling procedures that counseling personnel already have available in the target school setting. To identify these procedures, a planner must utilize an assessment of a school's current counseling and guidance objectives and related activities. Such an assessment is likely to show that a significant percentage of each counselor's activities are connected with administrative objectives unrelated to his professional skills. In addition, the assessment will isolate those procedures presently being used with students to help them fulfill their guidance needs, as well as those procedures counselors have available but which have not yet been incorporated into the school's current guidance programs. For example, in an in-service training program, the counselors of a particular school may have learned to role-play personnel officers or admissions officials. However, they may not yet have had opportunities to integrate these procedures into their school's guidance programs. Whether or not they have been applied, the techniques identified in this step should not require the target school or district to spend additional funds to make them available to students, unless perhaps to hire individuals to do the administrative activities formerly done by counselors.

2. List the instructional and counseling procedures that are not currently available in the target school/district setting but which are available either from commercial or non-profit organizations. For example, a series of films demonstrating the type of work and working conditions found in various occupations might be appropriate to student learning of the performance specified in an objective. Even though a target school or district may not have these films in their audio-visual library, they could be rented or purchased from a commercial supplier.

3. Isolate locally or commercially available procedures that could be made appropriate through adaptation. Often those instructional

and counseling techniques that have been developed require modification to become ideally suited to student learning of the particular behavior that is described in a performance objective. In some instances, the adaptation can be made as the procedure is used with students, such as showing only the most relevant parts of a film, film-strip, or video-tape. In other instances, additional "development" time is required of counseling personnel to transform the item into an adequate instructional or counseling procedure.

4. Itemize the procedures that are not available locally or commercially and, therefore, would need to be developed. Novel procedures are constantly being generated and pilot tested by counseling and guidance researchers. New information on the kinds of techniques that are most effective in helping certain students learn a particular kind of performance is constantly being generated. In fact, a publication called "Communique," distributed by the ERIC Center at the University of Michigan, is designed solely to help teachers and counselors by disseminating information on newly developed techniques. However, when development is contemplated, program planners must estimate the cost to a target school/district (both in terms of staff time and materials production) as precisely as possible.

5. Select the procedures that are most practical on the basis of the target school/district's budgetary constraints. As indicated earlier, the program planner needs to choose the technique that most closely approximates the conditions called for by each performance objective. Suppose an objective called for a student to be able *to make an effective oral leadership response to spoken threats or challenges from other members of a group*. Appropriate techniques are those that can speak in a threatening manner to the student, i.e., audio techniques. This might be done by film, video-tape, audio-tape, a record, a teacher or counselor, or by a peer tutor. Comparing what is appropriate with what is available and feasible, the teacher or counselor and student tutors might be ruled out because it would be difficult to schedule enough of their time to give the student sufficient practice. A film or video-tape might be eliminated for similar reasons. A student would be likely to get the most practice if furnished with a tape recorder and appropriate audio-tape. If, however, the tape recording equipment is unavailable due to a school's or district's limited budget, the counselor or teacher himself may be the best practical alternative.

Shown below is an example of a student performance objective and the activities and materials that were selected (on the basis of appropriateness and feasibility) to help students achieve it. This example is from the San Jose Educational-Vocational Development Program that was developed for one of the field tests.

Performance Objective: To describe the typical work activities of an accountant.

Student Activities:

1. Read the section on "Accountants and Auditors" on pp. 180-181 of *Occupations and Careers* (Feingold, McGraw-Hill, 1969).

2. You have learned what accountants do. To practice some of their on-the-job activities use the Job Experience Kit titled "Accountant." Read the booklet and follow the directions in it. Keep your completed answer sheet (found in the kit) with this student guide.

3. Companies and government agencies, just like families and individuals, need to budget their money. They need to keep financial records on how much money they have, how much they spend, and how much they receive. They must also plan ahead so that they will have enough money to meet their expenses. Accountants plan budgets, develop systems for keeping financial records, check the accuracy of financial records, and analyze the meaning of financial statements.

   How well do you keep account of your finances? For the next week, keep account of all the money you receive and what you do with it. If you have any questions about the following activities, discuss them with your teacher or counselor.

   a. First plan a budget by estimating how much money you will receive and how you will use the money. Divide a piece of paper into three columns. In one column, list all the items you generally use money for during the week, such as food, bus fare, clothes, savings, etc. In the next column, estimate how much you spend in a week on each item. In the last column, list where you get the money for these expenses, such as part-time work, allowance, savings, etc.

   b. Next develop a system for keeping track of the money you receive and how you spend it. Have a place to write down the amount of money you spend and a description of how you spend it. Also have a place to enter how much money you receive and where you get the money. Explain to your teacher how you plan to keep track of your money.

   c. During the next week, keep a careful record of all the money you spend and all the money you receive.

   d. At the end of the period, compare your original budget with your actual income and how you used it. Add up the amount of money you spent or saved and add up the amount of money you received. Both sums should be equal! See if you can account for where your money went.

   When you have completed these four steps, show your records to your teacher or counselor and explain your accounts.

4. Write a short paragraph describing the typical work activities of an accountant.

Implementation of Selected Procedures

Once the most effective and feasible instructional and counseling procedures have been selected (and expressed in the form of program process objectives), the activities they represent must be scheduled, and the staff services and material resources required to conduct these activities gathered.

To facilitate a variety of alternative methods of program implementation in the system, all the performance objectives and related activities and materials that were derived from a particular student goal statement are organized into individualized student learning units. These units serve as the basic curriculum element in each of the programs, and building blocks in the design of individualized programs of study. The student, his parents, teachers, and counselor, all are engaged in the process of deciding which units are appropriate for him. To date, the units developed in the various CCGS programs have been viewed as relevant to needs most students have, although one program--the Personal and Social Development Program--was designed to be implemented in both a developmental and prescriptive phase.

Several methods for increasing the individualization of the use of these units have been developed. They help students to determine which units in a guidance program contain goals and objectives he has not yet achieved and, therefore, would be appropriate for him to study and which he need not work on. The first method is the placement test which assesses whether the student can demonstrate adequate performance on items keyed to the unit objectives. The results are used to "place" the student in a unit appropriate to his needs. The second method is less structured and requires the student to assess his own learning status. If a student examines the objectives and activities in a particular unit, and judges that he already has achieved these objectives, he may elect to "challenge" the unit by taking the end-of-unit proficiency test. If his performance on this test is satisfactory, he need not work on the unit. If he fails to demonstrate he has achieved the unit objectives, he must do the activities related to the objectives he clearly has not mastered.

The following statements are excerpted from an orientation unit in one of the CCGS programs to illustrate how a student's experiences in working on an individualized learning unit would differ from his experiences in an ordinary classroom.

> *This class will differ from any of your other classes. Looking at it from a student's point of view, the most noticeable difference will be in the level of student responsibility.*

Each student will work at a rate of speed that is best for him. This means that you will not have to keep up with other members of the class, nor will you have to wait for them. In many classes, all students work on the same lesson at the same time, and all must move on to the next lesson at the same time.

Since this course does allow for individual differences in work rates, it will be up to you to learn to manage your time wisely. In some cases this will mean looking ahead in the Student Guide to see what activities are coming.

Similarly, it is necessary to think ahead about participation in discussion groups and obtaining special teacher or counselor help.

A second major difference in responsibility is that of testing. In this class, you, not the teacher, should decide when you are ready for a test. When you think you are ready for a test, you will need to see the teacher or aide, turn in all of the written work for the unit, and obtain the test and answer form. A special section of the room is reserved for testing only, and this is where you will take all of your tests.

A third major difference will be in your responsibility for management of your learning. This does not mean that you are "on your own" to learn everything. It does mean that you might often have to go to the teacher, the aide, a friend, or your counselor and say, "I need help. I don't understand this."

A fourth major difference will be your responsibility for your behavior. In this class you will be free to move about the room, free to talk to other students, and free to operate audio visual equipment. This freedom is possible, however, only when students are determined to make such a system work.

Individualized student learning units can be implemented in a variety of ways: separate guidance classes, individual counseling sessions, specially-scheduled group counseling experiences, guidance resource centers that promote student self-managed learning experiences, or integrated into standard classroom programs (as illustrated above) in the various curriculum areas.

Each individualized student learning unit contains:

1. A statement of the unit purpose (goal statement).

2. Statements of the desired outcomes that the student will be expected to demonstrate upon completing the unit (performance objectives).

3. A sample item from the end-of-unit evaluation procedure that is used to determine when the student has attained the criterion specified in each performance objective.

4. Statements of activities the student is to engage in, and of materials the student is to use, to reach each performance objective.

5. References to the materials used by the student in the prescribed learning activities. (Since students are able to progress through units at their own rates of speed, it is not necessary for each student to have his own complete set of materials.)

6. A copy of the end-of-unit proficiency test that enables both student and counselor or teacher to determine if the student has achieved the unit's performance objectives.

7. A copy of the answer form that goes with each proficiency test.

8. It may also include a teacher-counselor supplement that describes the various interactive roles (e.g., general supervisor, tutor, discussion leader, evaluator) that the teacher or counselor performs when students reach various points in the unit. In addition, the supplement explains the rationale for the instructional and counseling procedures included in the unit, and a copy of the answer key for the end-of-unit proficiency test.

A sample student guide sheet, illustrating many of these features, is shown on the next page.

At each field test school, units were designed and developed by the same task forces which accomplished the planning tasks described in Chapter II. These task forces were made up of key teachers, counselors, and students and assisted by AIR staff. Initially, they itemized and priced all staff services (counselors, teachers, aides, volunteers, etc.) required to implement the selected instructional and counseling procedures. Then, the task forces evaluated this "ideal" list of services and resources in light of information on budgetary constraints furnished both by school principals and AIR project staff. Once this evaluation was completed, the task forces made a preliminary recommendation to their school administration and to AIR project staff regarding the services and resources that they judged could be implemented feasibly.

Sample Student Guide

A. This shows the goal (purpose) of the learning unit.

B. These also are called "Performance Objectives." It tells what the student should be able to do at the end of his study of the unit.

C. Sample test question. The student will see questions similar to this on the end-of-unit test.

D. This section tells what the student should do. The directions will be numbered in a recommended sequence which normally should be followed.

E. Next to each direction will be a short line. This is to provide the student with a place to check off an activity after he completes it.

F. Sometimes the student will see a box, rather than a short line. This box means that he is to contact the teacher or aide after the activity. The teacher or aide will review the student's work and will then write his own initials inside the box.

G. Special directions for an activity requiring some advance planning by the student are shown in starred boxes.

(Sample)

STUDENT GUIDE

"UNDERSTANDING RIGHT OF WAY"

THE POINT: The purpose of this unit is to help you to:

understand the State of California motor vehicle rules concerning right of way.

MAKING SURE WE'RE MAKING SENSE:

1. Explain the expression, "right of way."
2. Identify the rules for right of way for four-stop sign intersections.

DID YOU DIG IT?

When you can answer a question like the sample below, you've dug it.

1. Write a definition (two to three lines) of the term "right of way."

STUDENT DIRECTIONS:

____ 1. Read Chapter 4, pages 8-16, in *California Vehicle Rules*.

☐ 2. Explain to the teacher the purpose of rules 12 and 26.

****
*____ 3. Participate in a discussion group, following the *
*directions printed on page 9, "Discussion Activity, *
**California Vehicle Rules* *
****

(Sample)

After agreement was reached regarding sufficient amounts of services and resources, the task forces developed an implementation schedule. Examples of major implementation tasks scheduled and accomplished in CCGS field tests are:

1. Identification and selection of those students, representative of key student target populations, who would experience either the Comprehensive Career Guidance System programs or various types of control treatments.

2. Identification and selection of school and volunteer staff members to furnish the human services required in each program.

3. Informal workshops to train task force personnel in unit development skills.

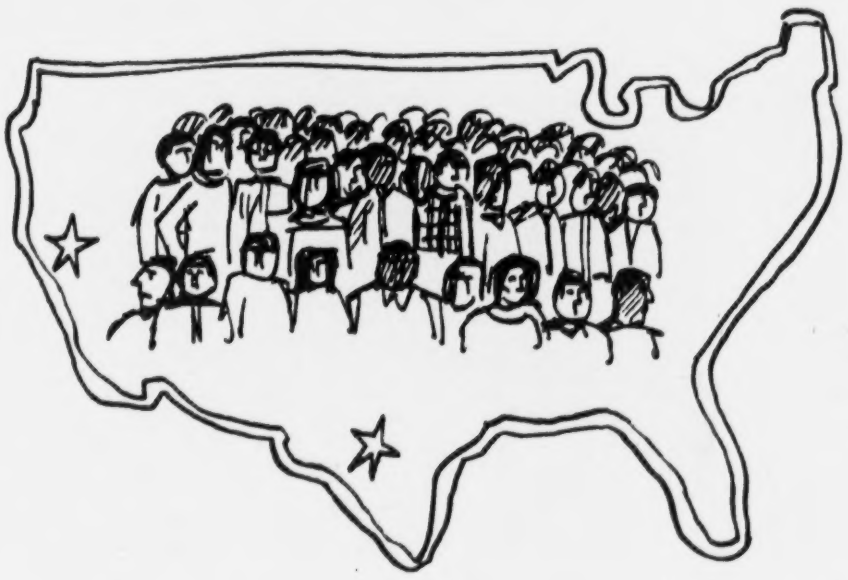
4. Development of new (or modified) units.

5. Printing and delivery of units to the schools.

6. Ordering and having delivered to the schools required resources not presently available (e.g., commercial materials, tape recorders, film-strip viewers).

7. Informal staff development workshops to train counselors and teachers to implement programs.

Implementation of CCGS Field Tests



The outcomes of accomplishing implementation tasks such as those above are illustrated in the following descriptions of field tests.

The 1971-72 San Jose Unified Educational-Vocational Development Program was designed to help ninth-and tenth-grade students assess their personal characteristics, study career opportunities, and set tentative long-range goals related to their characteristics.

At John Muir Junior High School, the units were implemented as a one-quarter optional course within the school's ninth-grade social studies curriculum. That is, every ninth-grade student was required at the beginning of the school year to select one quarter-long course from each of four sets of possible courses. The "Vocational Guidance" course was listed as an option in one of these four sets. As a result, each student ended up with a program of courses in social studies tailored to his own interests. Approximately one-third (200) of all ninth-grade students selected the "Vocational Guidance" option.

At Pioneer High School, the developmental vocational guidance program was implemented as a separate guidance course required of all tenth-grade students. Approximately 330 students were randomly assigned to one of two groups for the two quarters during the fall semester. One group was assigned to a course in driver education (a state requirement) during the first quarter while the second group worked on the units in the vocational guidance program in a course entitled "Career and Educational Planning." During the second quarter these two groups reversed their activities. This entire procedure was duplicated in the spring semester for the remaining 330 tenth-grade students.

The teachers selected to instruct these guidance courses at both the junior and senior high schools had 7-10 years of experience as social studies instructors. They were selected on the basis of their experience with individualized education, and on the basis of their willingness to help students attain guidance-related goals and objectives. Each of them participated extensively in the design and implementation of the individualized learning units that comprised the program. In addition, they participated in a brief in-service training workshop for the purpose of acquiring or refining the skills required to implement the program. In several units, counselors were asked to validate student assessment of self-perceived and measured personal characteristics, as well as student-parent selection of tentative long-range goals based on this assessment and on knowledge of occupational families. Furthermore, counselors were expected to assist students in planning high school programs of courses related to the known requirements of their tentatively selected long-range goals. These individual interactions were scheduled either in the classroom or in the counselor's office; however, it was the student's responsibility (as explicitly stated in the guide sheets to his learning units) to arrange the meeting time and place.

The 1971-72 San Jose Unified Personal and Social Development Program (PSDP) was formulated to help tenth grade students identify behaviors which they wanted to either acquire or reduce, and to use instructional and counseling procedures organized and sequenced to assist them to reach their goals. As was the case with the Educational and Vocational Guidance Program, the PSDP individualized student learning units were designed to facilitate their implementation in a broad variety of school settings.

The PSDP units were implemented with two classes of tenth grade language arts students (at Pioneer High School) during the first semester of the 1971-72 school year. Approximately 40 students experienced the PSDP units, receiving two quarter's worth of credits toward their language arts requirements. The teacher overseeing the implementation of the PSDP had five years of teaching experience in the social studies and language arts curriculum areas, and demonstrated a strong commitment to helping students learn how to fulfill their personal and social potential.

This teacher, along with a counselor and selected students from Pioneer High School, worked with AIR staff during July and August in order to make the PSDP units suitable for the target language arts students. Major emphasis was placed on outcome data collected during a spring 1971 pilot test carried out at Pioneer, and on student and teacher subjective reactions to their experiences in the program. Improvements were made in the PSDP student orientation procedures, and in various criterion instruments. In addition, modifications were made in many of the student units by incorporating more group discussions and teacher check points in the instructional and counseling activities. Counselors were available to students at any time.

The 1971-72 Booker T. Washington Junior-Senior High Orientation and Personal Assessment Programs were designed for two general purposes. First, to orient seventh-grade students (and new ninth-grade students) to this school, its programs, and policies. Second, to assist seventh- and ninth-grade students to learn about personal characteristics (i.e., developed abilities, interests, values, personal and social behavior, and physical traits), to understand the degree to which these characteristics are changeable, and to collect and evaluate data (both measured and self-perceived) on their own characteristics in relation to educational and vocational opportunities.

Early in the 1971-72 school term, about 100 seventh graders and those of their parents who volunteered participated in the Orientation Program. This program focused on such topics as: youth development problems that typically emerge in the seventh grade; the range of courses offered at BTW and their relevance for student careers; educational innovations at BTW including individualized education, the Comprehensive Career Guidance System, and modular scheduling; sources of help available for BTW students and parents; and cooperative efforts that BTW educational programs require of both students and parents.

Personal Assessment student learning units were implemented during the first and second semesters with approximately 100 seventh- and ninth-grade students. These students were selected from among the students chosen by the principal to experience an initial phase of this school's approach to flexible scheduling.

All orientation and personal assessment units were developed and pilot-tested with selected ninth-grade students in the spring semester, 1971. They were later modified based on student performance as well as subjective data, and subsequently implemented with selected students assigned to a special guidance resource center for this program. As already detailed in Chapter I, page 13, staff services were provided by a paraprofessional who demonstrated very adequate levels of organizational, supervisory, and staff-student interaction skills.

The 1971 San Jose Unified Effective Personal Problem-Solving Program was designed to help secondary level students learn how to approach and solve personal problems in a rational, systematic way. These are the six components, or student skill areas, in the program:

1. Seeing, defining, and deciding to work on the problem.

2. Searching for, evaluating, and using information (sources: the individual, other people, printed and audio-visual material).

3. Coming up with, and considering, several solutions to the problem.

4. Selecting first and second choices and making plans to try them out.

5. Implementing the plans.

6. Evaluating the extent to which the problem has been solved, and generalizing what has been learned during the problem-solving process.

Individualized student learning units were designed for each of these six student skill areas. Each unit contained: (a) an explanation of the behaviors to be learned and used in each skill area, (b) peer group examples (audio tapes with stops) of problem-solving behaviors, (c) exercises in which students practiced each behavior, (d) a simulated problem which students attempted to solve, and (e) a Personal Casebook which assisted students to apply this problem-solving process to one or more of their current problems.

Skill areas 1 and 2 (and related units) of the program were developed and implemented in three humanities classes (eleventh-and twelfth-grade levels) at Pioneer High School during the last three weeks of May, 1971. This pilot test initially introduced the program

to some 70 students, but participation was made optional and only those students feeling that the program was particularly relevant to their needs continued. About 20 students were involved in the later stages of program implementation. The informal atmosphere of these classes was more conducive to frank personal reactions to the materials than to rigorous evaluation, but the former was deemed more valuable due to the preliminary nature of the program materials.

Chapter III Training Objectives

This chapter was designed to enable each reader to:

1. list at least five instructional and counseling procedures that were investigated for possible use in field tests;

2. describe at least one criterion used by guidance program planners for choosing instructional and counseling procedures that will be appropriate to a performance objective;

3. summarize the five steps that program planners should follow in selecting those procedures that can be implemented from among those that are appropriate;

4. outline at least four of the elements that make up a typical individualized student learning unit from a CCGS program;

5. describe at least four of the tasks that make up a standard implementation schedule in a field test.

6. summarize at least two distinctive ways that objectives-based learning procedures (organized in the form of individualized student learning units) were implemented within the schools which participated in this guidance system's field tests.

If, after reading Chapter III, the reader is not able to accomplish these objectives, it is suggested that he review the pertinent sections of the chapter.

CHAPTER IV

Evaluation of Guidance Programs

The previous chapters have presented planning methods and criteria which allow program planners to:

1. derive student goals and student performance objectives (program product objectives) from high priority youth needs;

2. determine the activities that will help students to achieve their performance objectives (these activities are the program process objectives); and

3. select and implement the most appropriate and feasible activities for student learning.

This chapter is concerned with evaluation--the phase of the planning process that determines whether program products and procedures are effective and efficient in assisting youth to reach their goals and performance objectives.

Three Types of Evaluation

There are at least three important types of evaluation that are useful in establishing whether the various programs in a career guidance system have been implemented and are functioning adequately. Product Evaluation focuses upon whether students have reached their goals and how skillful they have become in the activities required to achieve the goals. Procedural Evaluation assesses how well those conducting the program have carried out the procedures necessary to help students reach their goals. Finally, the Evaluation of Program Side Effects deals with how the participants react to program activities, and with the possible impact of guidance programs upon local conditions and upon the attitudes of school personnel and members of the community.

Each type of evaluation is more fully described below; the data collection and analysis procedures for each type of evaluation are treated in separate sections, as is the topic of selecting an appropriate evaluation design.

Product Evaluation

As indicated in Chapter II, this guidance system is predicated on an initial assessment of youth and adult perceptions of the behaviors students from a particular target population should be able to perform in each area of their lives. To provide direction for guidance program planning, these behaviors must then be incorporated into agreed-upon career guidance goals and performance objectives for each student. Furthermore, the statements of goals and performance objectives must include standards for acceptable performance to permit an evaluation of these two "products": (1) student achievement of these outcomes, and (2) the problem-solving process students used in reaching their goals and objectives.

Ordinarily it is not difficult to measure the first type of product--accomplishment of personal goals and objectives--when they relate directly to such visible attainments as completing a course requirement or graduating from high school. Designating student attainments in behaviorally stated performance objectives allows for relatively easy evaluation: the observer simply ascertains whether or not the standards of performance specified in the objective (e.g., the student must furnish evidence he accomplished his goal) are now fulfilled.

However, it is more difficult to measure "success" in the problem-solving areas of individual planning, decision making, and self management--the major skills necessary to set and reach goals wisely. To be appropriate, standards of performance must reflect student competence in employing these personal problem-solving skills not just for hypothetical others presented in case studies, but also in their own lives. In the following passage, Katz[1] discusses key issues concerning these criteria:

> Without directing the content of an individual's choice, we do think we can help in the process of choosing. This emphasis on process does not pretend to insure the "right" choice. Our conviction is that in education enlightened processes are intrinsically important. Therefore, we bend our efforts to increase the student's understanding of the factors involved in choice (imperfect though our own understanding may be) so that he can take responsibility for his

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[1] Katz, M. Can Computers Make Guidance Decisions for Students? *College Board Review*, 1969, 72, 13-17.

own decision making, examine himself and explore his options in a systematic and comprehensive way, take purposeful action in testing hypotheses about himself in various situations, and exercise flexibility in devising alternate plans. (p. 17)

Procedural Evaluation

Procedural evaluation in an individualized career guidance system is intended to furnish regular feedback to program planners who are responsible for designing and implementing program plans and procedures. The purposes of procedural evaluation are threefold: (1) to monitor the implementation of guidance programs, (2) to supply information required for decisions which have to be made during the program implementation phase (e.g., the Program for Effective Personal Problem Solving was initially introduced to some 70 students, but it was decided to have them participate later on an optional basis if, in fact, only a subset of these students felt subsequently that the program was relevant to their needs), and (3) to assess the extent to which the guidance programs are implemented as they were originally designed.

Evaluation of Program Side Effects

As important as it is to measure intended program outcomes as well as the procedures employed to produce them, at best they furnish only a partial indication of the outcomes of employing a particular program. The side effects of a program are also very important. Information on unanticipated outcomes should be sought even though these outcomes may be difficult to measure, especially if they include youth and adult changes in affective responses.

Evaluating the unanticipated side effects of guidance programs implemented within an individualized guidance system has three purposes.

The prime assumption of this guidance system is that meaningful human action involves a great deal of individual goal setting and related goal-directed activity. Thus, it is desirable to collect data on the unexpected reactions youth and adults have to this major aspect of their lives as it is reflected in the goal-setting and goal-seeking activities of each guidance program.

These student and adult reactions will indicate which youth are deliberately avoiding the "future" orientation by saying, "That's what's wrong with the world--too many people hung up on worrying about planning for the future. What's important is living for here and now." Such reactions will also indicate which youth have no quarrel with the

significance of having goals but who discover that the process of seeking certain goals related to their participation in guidance programs is affecting them adversely. For these latter individuals, some modifications in either their goals or plans are obviously needed.

The second purpose of evaluating the side effects of guidance programs is to assess staff and student reactions toward the experiences they have throughout a program, not just those expected outcomes stated in each program's product objectives. These data will permit a program planner to see how a program is affecting the lives of students at various stages in its implementation. This feedback can serve as a basis for making adjustments in such program implementation areas as selection of particular counseling personnel and selection of target student groups, if strong negative reactions are received from large numbers of staff and students. Otherwise, the feedback can supply important subjective validation data for continuing with an implementation strategy as originally planned.

The third purpose of evaluating the unanticipated results of guidance programs is to collect data on outcomes (other than behavioral) which were not predicted by the program designers. One such outcome involves program expenses; perhaps the implementation proves to be much more expensive than expected. Another outcome might be that the available time was insufficient for students to complete the programs upon which they worked. Still another example result might be that learning resources necessary for program implementation simply were not available or could not be obtained on schedule. All such unanticipated outcomes must be considered in planning subsequent guidance activities.

Procedures for Collecting Evaluation Data

Product Evaluation Data

A student's achievement of his own, individualized goals and objectives resulting from his participation in a guidance program must be assessed in terms of his performance on a set of criterion tasks designed as behavioral indicators of his goal attainment and his career planning, decision-making, and self-management skills. Student performance on these tasks can be assessed to determine when this program has succeeded in helping students achieve their goals and acquire desired skills, when it has failed, and when it needs further development to increase its effectiveness.

Criterion-referenced measurement is the most appropriate strategy for assessing student performance on criterion tasks such as the six general ones outlined above. Norm-referenced measurement, the traditional strategy for assessing individual differences, is ill-suited to the product evaluation requirements of an individualized guidance system because it only provides a basis for comparing the performance of two or more individuals with each other. Evaluation instruments and procedures are needed to assess each student's knowledge. attitudes, and overt behaviors relative to predetermined achievement standards specified in his performance objectives.

A criterion-referenced test is designed to produce data that are directly interpretable in terms of clearly delineated performance standards. Such performance standards should be established prior to test construction and usually identify a domain of tasks that should be performed by an individual. These tasks can involve cognitive (knowledge), affective (attitudes), and psychomotor (skills) activities. Students are assessed on representative samples of tasks taken from this domain; such assessments are referenced directly to this domain for each youth. Page 35 of this report discusses how standards of acceptable performance are specified when goal statements are translated into student performance objectives. The <u>purpose</u> of testing is to determine a student's status with respect to these standards both before <u>and</u> after his participation in a guidance program.

Traditional methods of constructing tests, stressing median item difficulty and a high correlation between each item and the total test score, are inappropriate in the development of criterion-referenced evaluation instruments because those methods are intended to amplify test score variability. A "good" item in a criterion-referenced test is one which will be answered correctly by 100% of those students who have mastered the performance objective upon which it is based and will be missed by 100% of those students who have not mastered the objective. Thus, such a test should not be faulted if, when administered after instruction, everyone obtains a perfect score.

The process of developing test items based on a statement of student performance objectives demands that a comprehensive rationale be developed for each performance objective. A comprehensive rationale consists of three parts. The first is a description of the specific tasks or activities which the student must perform to demonstrate that he has achieved a performance objective. This task can be determined by collecting critical incidents which describe effective and ineffective youth performance of them. The second part of the rationale is an analysis of the behavior described in the first part. This analysis is particularly useful in demonstrating the <u>importance</u> of the behavior, and insures that trivial test items are not generated. Finally, the rationale proposes one or more test items that are felt to best represent effective performance on the task domain.

To assess each student's attainment of his own goals and performance objectives, several types of evaluation instruments in which

criterion items are strictly related to student performance objectives are administered. The first kind of instrument is called an "end-of-unit proficiency test" which students take when they complete an individualized learning unit, such as those described in Chapter III. The results of such a test, usually reviewed by the student in a conference with his counselor or teacher, are used to assist individual students to determine when they have mastered desired skills. For example, if a student had correctly answered a satisfactory number (say 80%) of the items that were designed to test his performance on a specific task domain defined in one of his unit's performance objectives, he is judged to have mastered that particular objective. If, on the other hand, the student failed to answer enough items correctly, he would receive assistance from either his counselor or teacher in identifying and doing some additional activities appropriate to the particular performance objective in question. Only when he has correctly answered a sufficient number of the items on each performance objective assessed by an end-of-unit test, will he be considered ready to go on to another unit in the guidance program.

The second type of evaluation instrument, called a "guidance survey test," is used to assess a student's achievement of his goals and objectives upon which three or more individualized learning units are designed. Such survey tests involve items constructed in the same manner as items incorporated in end-of-unit proficiency tests. Typically, three or more items are written for each student performance objective covered by the survey tests.

Several other paper-and-pencil instruments as well as interview and direct observation techniques are available for collecting product evaluation data. They include questionnaires, attitude surveys, interview formats, checklists, rating scales, and observational records. These approaches can be used to assess youth performance on cognitive, affective, and psychomotor activities or tasks. Knowledge outcomes are best measured by paper-and-pencil and interview techniques. However, the assessment of attitude outcomes requires a combination of these techniques, as well as direct behavioral observation and interviews. Skill performance objectives are best measured by behavioral observation in simulated or real-life settings. Such behavioral data are usually collected by trained observers, and tabulated in frequencies per unit of time. The next few pages display several illustrations of performance objectives and the related items written to test students. All of these are taken from program evaluation instruments or procedures used in 1971-72 field tests.

The first example, on the following page, shows a performance objective and one of the multiple-choice items written to measure student performance on the objective-defined tasks. The second example presents a different performance objective and the matching items that were considered to be appropriate criterion devices for assessing student performance on the behavioral tasks defined in the objective.

Performance Objective: Given examples of factors which are affecting job opportunities, identify whether they are social, economic, or technological factors.

Test Item:

When a new industrial process is invented and is introduced into an industry, sometimes certain jobs are no longer needed. In other cases, however, increased efficiency in the industry creates many new jobs. These are examples of a:

a. trend

b. social factor

c. economic factor

d. technological factor

Performance Objective: Given a list of occupational titles and a list of the 12 Long-Range Goal Groups (LRG's), match each occupational title with its LRG.

Test Item:

In each of the next three items (5-7), there is a list of six separate occupational titles. For each title, put the Roman numeral of the LRG which you think includes this occupation in the appropriate blank on your answer sheet. A list of the 12 LRG's is shown below to help you.

5. a. Music Teacher
   b. Truck Driver
   c. Chemist
   d. Social Worker
   e. Plasterer
   f. Accountant

6. a. Grocery Clerk
   b. Secretary
   c. Physician
   d. Computer Programmer
   e. Electrician
   f. Librarian

7. a. Lawyer

   b. Fireman

   c. Airplane Pilot

   d. Medical Technologist

   e. Elementary School Teacher

   f. Physicist

I:	Engineering, Physical Science, Mathematics, Architecture
II:	Medical and Biological Sciences
III:	Business Administration
IV:	General Teaching and Social Service
V:	Humanities, Law, Social and Behavioral Sciences
VI:	Fine Arts, Performing Arts
VII:	Technical Jobs
VIII:	Business, Sales
IX:	Mechanics, Industrial Trades
X:	Construction Trades
XI:	Business, Secretarial-Clerical
XII:	General, Commercial Service, Public Service

The third illustration, which begins below, presents another performance objective but, this time, one for which a questionnaire format was used.

Performance Objective: To make an informed selection of your first choice tentative long-range vocational goal, and of your second choice long-range goal.

Questionnaire Items:

1. During the last quarter, did you pick some tentative long-range vocational goals? Answer this question by putting a check in the appropriate box below.

☐ Yes, I picked a first and second choice vocational long-range goal.

☐ No, I did not pick a vocational long-range goal.

If you checked the "Yes" box, there are a few additional questions for you to answer below and on the following pages. If you checked the "No" box, you are finished with this survey and may hand in this booklet to your counselor.

2. In the spaces provided below, describe in a statement or two the occupational families which you selected as your two long-range goals.

3. In the charts provided, indicate how your developed abilities compare with the abilities of twelfth graders who later entered occupations related to your goals.

4. In the spaces provided, describe how your interests are related to your first and second choice goals. Mention the results of any interest inventories you may have taken during the last quarter.

5. In the spaces provided, describe how you considered your work values before you picked your first and second choice goals. Mention the results of any work values inventories you may have taken during the last quarter.

6. In the spaces provided, describe how you considered your personal and social behavior before you picked your first and second choice goals.

7. In the spaces provided, describe how you considered your physical traits before you picked your first and second choice goals.

The fourth illustration, on the following page, includes a performance objective that specifies a particular domain of attitudes, and a paper-and-pencil item taken from a guidance attitude survey.

Performance Objective: Given printed statements about how a student prefers to choose his career goals, to identify as your preferred method that of having advice from someone else but selecting the goals yourself.

Survey Item:

Each phrase at the left is the beginning of a sentence. From the statements at the right, select the one that would make the sentence true for you. Then place the letter corresponding to that statement on the line next to the phrase.

In regard to:

my educational goals, I prefer to (put one of the letters at the right here) _____

my citizenship goals, I prefer to _____

my leisure time goals, I prefer to _____

my job goals, I prefer to _____

my occupational goals, I prefer to _____

my social-relationship goals, I prefer to _____

my personal-behavior goals, I prefer to _____

my learning goals, I prefer to _____

my other types of goals, (if any) I prefer to _____

A. have these goals selected for me by someone else.

B. have someone else choose goals for me.

C. have advice from someone else but select the goals myself.

D. select these specific goals myself without help from anyone else.

The following final example illustrates a student behavior observation procedure that has been used to evaluate changes students have made in employing certain personal and social skills.

Performance Objective: To increase the number of positive behaviors you perform in the area of showing consideration for the feelings of others.

Behavioral Observation by Teachers:

A Performance Record is used by teachers to help students gather facts about their behavior. The Performance Record consists of a list of behaviors which are important incidents in the personal and social development of students. For the above objective, the following student behaviors are listed on the Performance Record:

Shared or took turns with someone.

Helped to assure that others were not left out.

Helped another person to participate in learning or play activity.

Aided another person who was not feeling well or who was physically hurt.

Helped a handicapped student to participate in learning or play activities.

Provided something for or gave up something to help another.

Cheered up, complimented, or encouraged another person.

Showed respect in making suggestions to another person.

On his own initiative, interceded for another person who was being criticized or taken advantage of by others.

Teachers are encouraged to record the critical incidents as objectively as possible. The recording is considered objective if another teacher, knowing a student as well and observing the student at the same time, then reports the same critical incident. Teachers should not set aside a definite time each day to record the critical incidents of student behavior. Nor should they observe a student with the hope he will do something which could be recorded as a critical incident. instead, teachers should record the critical incidents of student behavior which are noticed spontaneously during the course of the school day. Furthermore, behaviors should be continual. This does not mean that teachers will have to spend a great deal of time observing; minute-by-minute observation is not necessary. Only when noteworthy behaviors are performed do they need to take notice for the purpose of recording critical incidents.

Procedural Evaluation Data

These data indicate the extent to which program planners and implementers have attained (or are attaining) their process objectives. That is, have they actually done what they said they were going to do in preparing program instructional and counseling procedures, evaluation instruments and procedures, and the like? Have they actually conducted what they intended in the settings (classrooms, guidance resource centers, etc.) where the guidance programs were to be implemented? If process objectives are stated clearly and precisely, their attainment may be measured by simply constructing a checklist of "Yes, it was done," or "No, it was not done," items. Two examples of simple items for this type of checklist are presented below.

1. By July 1, a task force of counselors and district guidance administrators used student needs assessment data to identify the top priority guidance needs of students.

   Yes _____

   No _____

2. By August 1, a task force of counselors and district guidance administrators translated top priority student guidance needs into goal statements and related student performance objectives that were written in terms of student behavioral outcomes.

   Yes _____

   No _____

As is the case with any objective, specific stimulus conditions and standards of performance must be designated. The examples above contain both of these elements; however, more detailed standards and conditions could be included. Questionnaires, interview schedules, and observational techniques are other possible instruments that can be used to collect process evaluation data.

Unanticipated Side Effects Data

These data document the inintended effects that take place during and as a result of the development, implementation, evaluation, and revision of guidance programs. Attitude surveys, structured reaction sheets, and case-study techniques can be used to collect this type of data. The latter method, stressing intensive observations on (and interviews with) a few students periodically over a long period, not

only highlights short-term side effects of guidance programs but also helps a program planner to examine the longer term effects of student attainment of goals and objectives.

Designing Conditions for Evaluation

Data for a procedural evaluation of program implementation, or for an evaluation of unanticipated program side effects, can be collected under almost any conditions without restricting the kinds of conclusions that can be drawn from them. However, the same "carte blanche" approach to the conditions under which data should be collected does not apply to product evaluation data.

To answer the essential question, "Did a program produce the kind and amount of results anticipated?", program planners must control the data collection conditions by formulating and using a pre-planned evaluation design. A good evaluation design furnishes the framework and strategy that control the field-test conditions, making it possible for program planners to come up with dependable answers to the questions raised by the field-test hypotheses. The design suggests what data to collect, how to collect them, how to analyze the data that are obtained, what statistical tests are appropriate, and what possible conclusions may be drawn from the statistical analyses. No single design is suitable for every type of field test. The nature of the field test determines which basic design is most appropriate.

When designing the conditions for evaluating programs from an individualized guidance system, program planners should incorporate some version of a comparative group experiment that assesses the status of student development both before and after program implementation. There are several well-documented advantages to using experimental research strategies when investigating the effects of guidance programs. First, experimental designs permit reliable inferences to be drawn regarding the causal relationships, if any, between a particular instructional or counseling procedure employed in a guidance program and the outcomes demonstrated by students. Second, if the target population and the procedures used in sampling from it have been clearly defined, the results obtained from experimentally investigating a particular strategy with a limited sample of students can be generalized to the total population. Finally, experimental designs permit program planners to control a host of potentially influential variables in order to isolate those which seem to offer the greatest promise of helping students to reach their own goals and objectives.

If they can, program planners should utilize a design that provides full experimental control through random selection of a sample of

students which will represent a given population, and random assignment of these students to treatment and control groups. If this ideal cannot be realized, they may consider using a design that incorporates the most control that can be achieved under the existing field-test conditions. Employing randomization procedures is not difficult, but intervening in class schedules, getting students from different classes to participate, and obtaining a sufficiently large sample to ensure that the operation of laws of chance will not unduly influence the results, often cannot be done. Under some circumstances, program planners may have to use already assembled groups, such as intact classes, for their experimental and control groups. If they do employ a partially controlled design, however, program planners must know what variables their design may fail to control, and they must consider the possibility that these variables, rather than the experimental guidance program, may account for the results of the field test.

In the field tests of programs described on pages 52-56 of this document, the following question was investigated: Would the instructional and counseling procedures contained in the various guidance programs influence students to achieve performance objectives considered to be relevant to their personal goals? It was hypothesized that: *each group of students exposed to a special program from this guidance system as well as to their school's regular guidance program, would be more influenced to achieve the goals and performance objectives in the program's individualized units than would students who were exposed only to the following control conditions.*

1. *guidance programs regularly available to students in the field test schools; or to*

2. *guidance programs regularly available to students in control schools.*

Selected for participation in field tests of programs from this guidance system were ninth and tenth graders in three demonstration schools (see pages 13 through 15 of this document for a description of these settings). In addition, comparable numbers of ninth and tenth graders were selected from three control schools, one to match each demonstration school. Since different career guidance programs were adapted to the student needs and characteristics in each demonstration school, the design did not involve replications in each of the three demonstration settings. The purpose of using the three settings was to study the applicability of the planning model and resources from this guidance system; therefore, no comparisons were planned across the three demonstration schools.

In some cases, it was possible to meet all the requirements for a strict experimental design. For the 1971-72 field test of the San Jose Educational-Vocational Guidance Program at Pioneer High School, random assignment from a sample pool of all 660 tenth-grade students stratified by two levels of age was made either to the experimental or to control treatment groups. Similar random assignment of experimental and control

subjects was possible for the two guidance programs evaluated at Booker T. Washington Junior-Senior High School in Houston, Texas. In the other field tests of programs from this guidance system, intact classes of students were non-randomly selected for participation either in experimental or in control groups. This was due to the need to gain teacher cooperation since the guidance programs investigated required so much teacher and student time during the school year. At the control schools, students were selected on the basis of characteristics (i.e., age, grade, sex, ethnic group, socioeconomic background, and academic achievement) that made them comparable to the students involved in the field tests at the demonstration schools.

Scoring and Analyzing Product Evaluation Data

Scoring Data

A number of procedures are available for scoring the various types of evaluation items. When multiple-choice or matching items are used, student responses can be scored objectively and simply, by using a scoring key that indicates for each item the one response which is considered correct. Where a survey test was used in field tests of this guidance system, a student was judged to have reached the criterion level of performance when he correctly answered approximately 80% of the multiple-choice and matching items. These items constitute a sample of the total pool of all such items written to assess students on tasks defined in a performance objective.

The scoring of student responses to open-ended questionnaire items designed to elicit written self-reported evidence that a particular performance objective has been achieved requires that scoring criteria be derived from the behavioral tasks defined in the statement of the objective. These scoring criteria provide a basis for analyzing the content of student responses, and for judging whether the content indicates that a student has satisfactorily achieved a particular objective. Each questionnaire response deemed appropriate in terms of the scoring criteria must be awarded a numerical score. The various responses can be viewed as equally significant and, therefore, be awarded the same numerical score; or, if there are differing levels of significance, they can be awarded weighted scores. A student's total score is then obtained by summing the weights of a student's correct responses on items related to each objective and compared to the score previously determined as the accepted standard.

To minimize human error, two or more individuals should receive training in analyzing the content of student responses in terms of the specified scoring criteria. To obtain inter-scorer reliability data, a small portion of the questionnaire items are selected and then pairs of scorers rate this group of items independently. Similarly, intra-scorer reliability data can be collected by having each scorer mark a random sample of items twice, thus furnishing data for determining his degree of consistency. A minimum level of reliability (both inter-scorer and intra-scorer) in the analysis of written content is a correlation coefficient of .90 (using the Pearson Product-Moment correlation procedure).

Two types of formats have been used to collect data on student attitude responses. An example of the first is found on page 63. In that example, "C" is the desired response and if the student gives that response he is awarded one point; for other responses no points are given. In the second type of format, a statement of a personal belief or conviction is presented and students are asked to indicate their degree of agreement with the statement by checking one of four (or more) responses such as: *strongly agree*, *slightly agree*, *slightly disagree*, and *strongly disagree*. If the statement of personal belief is worded such that to *strongly agree* with it indicates the most positive attitude toward it, 4 points are awarded to the student who checks that response. If a student checks *slightly agree* 3 points are given. For *slightly disagree* 2 points are given, and only one point is awarded for a response of *strongly disagree*. Taking into account student response sets, about one-half of the statements on such instruments are worded in such a way that to *strongly disagree* with them indicates the most positive attitude. In these instances, 4 points are awarded for a response of *strongly disagree*, 3 for *slightly disagree*, 2 for *slightly agree*, and one for *strongly agree*. For each objective the total possible points are computed and a criterion level of about 80% is set.

The scoring of behaviors identified by teacher observations of students and by students' own self-observations is very straightforward. Observations are made both of students who exhibit positive and of students who exhibit negative instances of the behavior specified in a particular objective. Each instance of a particular behavior exhibited is awarded the numerical score of 1, and labelled as either a positive or negative instance. A performance standard is set regarding the frequency of occurrence of such behaviors over time, and is expressed in a criterion point total.

Analyzing Data

Evaluation data are analyzed to determine the relative effectiveness of guidance programs in helping students to achieve personally relevant goals and performance objectives (when compared with the performance of

students in control groups). Data analyses are conducted for each student performance objective in the various guidance programs field tested to establish in each case: whether the experimental and control groups have the same proportions of individuals who showed achievement of an objective, following program implementation, that they had not attained before experiencing the program; or whether there is a statistically significant difference in these proportions favoring the experimental groups.

To analyze the data obtained from the field test of the 1971-72 San Jose Unified Educational-Vocational Guidance Program, Chi-Square tests were computed for each objective to determine whether the experimental and control groups had the same proportions of responses. Behavioral data obtained from the field test of the 1971-72 Personal and Social Development Program (PSDP) were analyzed by use of the Fisher's Exact Probability Test. This technique was chosen because the number of students participating in the PSDP field test was quite small, which resulted in insufficient data cell sizes to warrant analysis by Chi-Square procedures. Data from the 1971-72 Booker T. Washington Orientation and Personal Assessment Programs were analyzed in the same ways. The Chi-Square technique was used when cell sizes were sufficiently large; otherwise the Fisher's Exact Probability Test was employed. Tests of statistical significance were not computed on the data collected during the 1971 field test of the Program for Effective Personal Problem Solving (PEPPS), since the purpose of this field test was to gain student and staff reactions so that the program could be improved before it was completely developed and its overall impact on youth was rigorously investigated.

Formative and Summative Uses of Three Types of Data

Formative Evaluation

To complete the first cycle of comprehensive planning and development of career guidance programs, feedback to validate or correct each phase (needs assessment, statement of goals and objectives and priorities among them, selection of instructional and counseling procedures, and development and implementation of programs) is required. This feedback provision is often called "formative evaluation" since its purpose is to improve a program while it is under development. Formative evaluation should assess:

1. whether student performance objectives are being met. If not, then either these product objectives themselves or the procedural objectives may have to be changed;

2. whether the procedural objectives are being met. If not, then either these procedural objectives themselves or the specific implementation strategies may have to be changed; or

3. whether unanticipated positive and negative outcomes (e.g., changes in youth and adult reactions) indicate that adjustments are required in the program.

The concept of formative evaluation assumes that part of the effort and resources expended to develop and implement a guidance program will be devoted to field testing and improving that program as it takes shape in order to ensure that the program will be effective with a particular target population of students. Program planners should not expect a program to work perfectly the first time it is implemented. Part of the task of developing any program is to determine which aspects of it require improvement, to make the changes and reintroduce the program, and to continue the improvement process until the program is effective for those persons for whom it was intended.

Improving the Program for Effective Personal Problem Solving (PEPPS) by utilizing the results of a preliminary field test provides an example of the formative use of all three types of evaluation data. Subjective reactions of students to each student performance objective, instructional or counseling procedure, and item of learning material in the 1971 version of PEPPS were collected. In addition, unanticipated side effects data were collected through comments written on PEPPS materials and verbalized during interviews. These data were examined for constructive suggestions which could lead to subsequent improvements in the program; a report summarizing these suggested improvements was written for use by the development staff for this guidance system. This type of highly subjective evaluation is especially necessary during the preliminary stages of program development.

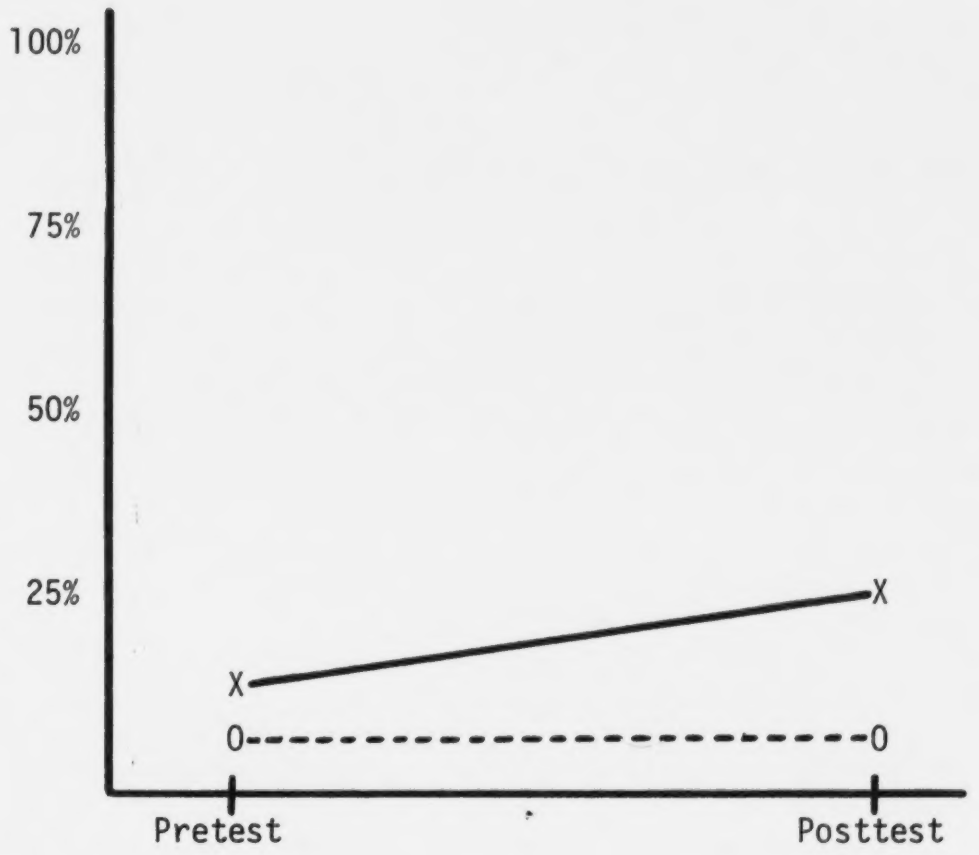
An example of formative evaluation focusing mainly on product evaluation data is displayed in the table on the next page. This table presents a summary of the responses of 30 ninth-grade students to 20 items related to a student performance objective from the 1970-71 version of the San Jose Unified Educational-Vocational Development Program. These results reflect a gain in criterion performance on a career guidance skill as a result of exposure to this program from the Comprehensive Career Guidance System. It can be seen that for these students a post-test performance level was 25% mastery; a 10% gain, but far from the desired 80% level. Such data as these are useful in providing feedback for revision of instructional and counseling strategies. Either the materials are not functioning in the intended manner, or students did not receive sufficient exposure to these materials. In this particular case, classroom observation of students and interviews with teachers suggested that due to unclear instructions few, if any, students had been adequately exposed to the materials for this objective. Based on this feedback, the instructions were substantially revised before they were incorporated in the 1971-72 version of the program.

TABLE 1

PERCENT OF STUDENTS WHO ANSWERED 80% OF THE ITEMS

RELATED TO THE FOLLOWING OBJECTIVE CORRECTLY

To classify examples of the following factors you should consider when you think about your future educational and vocational goals: (a) abilities, (b) interests, (c) values, (d) physical traits, and (e) personal and social behavior.



X——————X CCGS Program Students (N=20)

0----------0 No Treatment Students (N=10)

Findings obtained from implementing the 1971-72 program show that these revisions resulted in substantial improvement in its effectiveness. For ninth-grade students from John Muir Junior High School (the same school that was involved in the 1970-71 field test), a post-test performance level regarding achievement of the same objective was 63% mastery; a 37% gain when compared with pre-test performance (26% mastery).

An illustration of formative evaluation emphasizing procedural objectives is found in the 1970-71 version of the Personal and Social Development Program which was implemented in several English and Social Studies classes at Pioneer Senior High School in San Jose. Following the implementation, subjective reactions were solicited from both students and staff to identify program areas that required improvements. A general concern which emerged from a follow-up class discussion was the way in which students were prepared for their participation in the PSDP. One student said that the reason the program was not more successful than it was could be attributed to student confusion during their first contacts with the PSDP. She felt the program was good but that the students did not see it as important to their career development. On the basis of this and other student and staff comments, it was concluded that students must understand and accept a greater tie between the PSDP and how it can help them. Because this general concern emerged during one of the first field tests of the program, considerably more time was subsequently devoted to the orientation of students. During the following summer, selected students, teachers, and counselors worked in cooperation with PSDP developmental staff to devise a new student orientation unit which was used in the 1971-72 implementation.

The following example indicates how data on unexpected outcomes were used to modify a career guidance program during its formative evaluation phase. During the spring of 1971, students and staff at Booker T. Washington Junior-Senior High School in Houston, Texas reacted to preliminary drafts of instructional-counseling units and materials scheduled for experimental investigation in the 1971-72 school term. The program development staff had anticipated many of the reactions, and had developed program materials accordingly prior to this screening; but received numerous unexpected responses which provided vital information conducive to the tailoring of student learning procedures. For example, in reviewing a comic booklet designed for BTW youth, these "editors" reacted negatively to such things as the small number of black female students and faculty members with "naturals," and the apparent surliness and gloominess of some of the black males. The program developers had expected reactions to the comic script but were pleasantly surprised at the students' close examination of the comic pictures themselves. Appropriate artistic changes were made. The strong positive reactions to the whole approach of "customized comic booklets" was so unanticipated and encouraging, program revisions were made to focus the complete BTW orientation approach on this learning procedure and to search for comic alternatives for other guidance-related student performance objectives. This procedure was found to be particularly effective with slow, unmotivated reachers. Continued use of comic booklets and cartoons is planned for future field tests.

Summative Evaluation

The assessment of the effectiveness of a completed guidance program requires a "summative" or "impact" evaluation. At this point, program planners become accountable for the results of their finished programs. They must determine if their programs achieved their product and process objectives at an acceptable cost per student without producing too many negative unanticipated outcomes. If this cannot be demonstrated, summative evaluation is premature, and revisions of selected portions of the programs are still necessary. If the results of the summative evaluation are favorable, then the program is ready to be implemented with the entire student target population. Program planners can then progress to the next phase in the development cycle and identify the areas of student guidance needs (if any) for which no guidance programs have yet been developed but which were discovered as unmet in the lives of many students. These areas of unmet needs should be treated as high priority possibilities for subsequent program development.

During the 1971-72 field tests of programs derived from the Comprehensive Career Guidance System, extensive summative evaluation data were collected. These data related to product objectives, process objectives, and unanticipated side effects. Some of this summative evidence will be illustrated in the following two sections which complete this report. Procedural evaluation data will not be reviewed since many examples of this type are provided in preceding sections of this chapter.

In the first section which follows, guidance program impact on student performance objectives will be summarized for all 1971-72 field tests. In the second section, selected positive and negative student reactions to one of these programs will be provided to illustrate the unanticipated comments youth made after participating in field tests. Due to space limitations, reactions are shown for only one program in one school setting. This seems sufficient because these examples are appropriate for each program field tested.

Summary Results Based on Field-Test Product Evaluation Data

The following results, regarding student attainment of goals and objectives included in the various field test programs, are reported in more detail in the Appendix to this document. Also displayed in that Appendix are the tables that array data from which the statistically significant results were derived. No result is reported as indicating that a program significantly influenced a target group of students to achieve one of that program's goals unless half or more of the available experimental-control group comparisons results in the experimental treatment students exceeding the attainment level of control students at a statistical significance level of $\rho < .05$.

The reader should be cautioned that the sample pools of students at the various field test settings represented very heterogeneous groups of students. These students were at different points in their career planning and development experiences. Students who were more homogeneous on criterion variables related to career planning and development could have been selected for participation in the field test programs if placement tests had been administered; however, such tests were not available at the time when guidance programs were ready for field testing. As a consequence, it is possible that where programs were not found to have significantly influenced student attainment of program goals and objectives, it was due in part to the fact that some students had achieved particular objectives prior to entering the program. Future field tests should control for this factor by preparing and utilizing placement tests to select students who, in fact, need specific parts of each program in question.

1. <u>The 1971-72 San Jose Unified Educational-Vocational Development Program</u>

   a. Ninth-grade students who had experienced the program were more able (than were control students in the same school and in a comparable school) to:

      (i) identify important school and vocational decisions, and the points in time when it is probably best to make them.

      (ii) understand:

         (1) how to obtain information on current job trends;

         (2) some ways in which the availability and/or desirability of vocational opportunities are being influenced by trends resulting from social, economic, and technological factors; and

         (3) the importance of a student understanding the availability of vocational opportunities when he is in the process of setting long-range vocational goals and making plans to achieve them.

      (iii) recognize the factors by which occupations are sorted into a long-range goal (LRG) system of grouping occupations, and understand the meaning of each factor.

      (iv) show that they had collected and organized both measured and self-reported information about their abilities which can affect their choices of school and vocational goals, as well as describe data on their abilities.

   b. Ninth-grade students who experienced the program were <u>not</u> more able (than were control students in the same school and in a comparable school) to:

(i) recognize that if important decisions are made at the points in time when it is probably best to make them, they will probably open a maximum number of opportunities for them.

(ii) recognize the importance of grouping occupations according to things they have in common, and to match occupational titles with their appropriate LRG.

(iii) understand that information about their personal characteristics can help them set up their vocational goals, and that over time their personal characteristics may change, making it important to consider these changes in their planning.

(iv) judge how difficult it is to change specific personal characteristics.

(v) show that they had collected and organized information about their interests, values, physical traits, and personal and social behaviors which can affect their choices of school and vocational goals, as well as describe such information.

(vi) confirm, either with their parents or with school personnel, the information they had collected and organized about their personal characteristics.

c. Tenth-grade students who had experienced the program were more able (than were control students in the same school and in a comparable school) to:

(i) identify important school and vocational decisions, and the points in time when it is probably best to make them.

(ii) understand:

(1) how to obtain information on current job trends; and

(2) the importance of a student understanding the availability of vocational opportunities when he is in the process of setting long-range vocational goals and making plans to achieve.

(iii) recognize the factors by which occupations are sorted into a long-range goal (LRG) system of grouping occupations, and understand the meaning of each factor.

(iv) judge how difficult it is to change specific personal characteristics.

(v) show that they had collected and organized both measured and self-reported information about their abilities, interests, values, and physical traits which can affect their choices

of school and vocational goals; describe these data; and confirm this information in a conference with at least one school staff member who knows them well.

(vi) pick their first- and second-choice tentative long-range vocational goals, and plan a high school program to help them reach these goals.

d. Tenth-grade students who had experienced the program were not more able (than were control students in the same school and in a comparable school) to:

(i) recognize that if important decisions are made at the points in time when it is probably best to make them, they will probably open a maximum number of opportunities for them.

(ii) understand some ways in which the availability and/or desirability of vocational opportunities are being influenced by trends resulting from social, economic, and technological factors.

(iii) recognize the importance of grouping occupations according to things they have in common, and to match occupational titles with their appropriate LRG.

(iv) understand that information about their personal characteristics can help them set their vocational goals, and that probable changes in their characteristics over time are important factors to consider in their planning.

(v) show that they had collected and organized and described information (both self-reported and reported by significant others) about their personal and social behaviors which can affect their choices of school and vocational goals.

(vi) confirm, in a conference with their parents, information they had collected and organized about their personal characteristics.

2. The 1971-72 Booker T. Washington Junior-Senior High Orientation and Personal Assessment Programs

a. Seventh-grade students who had experienced the programs were more able (than were control students in the same school--both programs--and in a comparable school--Personal Assessment Program) to:

(i) express a positive reaction to education in general, Booker T. Washington in particular, and the impact the school was having on their own development.

(ii) identify key terms such as decision and choice point, and the possible effects a person's decision is likely to have on his future.

(iii) compare different approaches they, and persons like them, can have toward their future.

(iv) affirm that individuals are not "trapped by the future," rather that their actions definitely can influence the way their lives work out.

(v) understand the meaning of the terms: personal need, personal goal, and personal plan.

(vi) understand and affirm the basic assumptions and some of the terms of the Comprehensive Career Guidance System.

(vii) identify a CCGS activity when furnished with a description of a student doing it.

(viii) understand that information about their personal characteristics can help them set their vocational goals, and that over a time period their personal characteristics may change, making it important to consider these changes in their planning.

(ix) show that they had collected and organized information on their abilities, interests, and values; and confirm, in a conference with their parents, that they understood this information.

b. Seventh-grade students who had experienced the programs were <u>not</u> more able (than were control students in the same school--both programs--and in a comparable school--Personal Assessment Program) to:

(i) identify and affirm the courses offered at Booker T. Washington, the educational innovations used there, or the resources available at school and at home.

(ii) recognize examples of cause and effect relationships, or distinguish between events that might have either short-run or long-range impact on human lives.

(iii) express a positive reaction to the desirability of having personal goals and progressing toward them.

(iv) identify how information on the requirements for a particular vocational opportunity, and on the personal characteristics and background of a hypothetical student might influence that student's selection and pursuit of his school and vocational goals.

(v) confirm, in a conference with a school staff member who knew them well, that they understood their personal characteristics information.

c. Ninth-grade students who had experienced the programs were more able (than were control students in the same school--both programs--and in a comparable school--Personal Assessment Program) to:

(i) express a positive reaction to education in general, Booker T. Washington in particular, and the impact the school was having on their own development.

(ii) recognize examples of cause and effect relationships and distinguish between events that might have either short-run or long-range impact on human lives.

(iii) identify key terms such as decision and choice point, and the possible effects a person's decision is likely to have on his future.

(iv) affirm that individuals are not "trapped by the future," rather that their actions definitely can influence the way their lives work out.

(v) understand the meanings of the terms: personal needs, personal goal, and personal plan.

(vi) affirm the basic assumptions of the Comprehensive Career Guidance System.

(vii) understand that information about their personal characteristics can help them set their vocational goals, and that over a time period their personal characteristics may change, making it important to consider these changes in their planning.

(viii) show that they had collected and organized information on their abilities, interests, and values; and confirm, in a conference with a school staff member who knew them well, that they understood this information.

d. Ninth-grade students who had experienced the programs were <u>not</u> more able (than were control students in the same school--both programs--and in a comparable school--Personal Assessment Program) to:

(i) express a positive reaction to the desirability of having personal goals and progressing toward them.

(ii) compare different approaches they, and persons like them, can have toward their future.

(iii) understand the basic assumptions of the Comprehensive Career Guidance System or the meaning of some of its key terms.

(iv) identify a CCGS activity when furnished with a description of a student doing it.

(v) identify how information on the requirements of a particular vocational opportunity, and on the personal characteristics and background of a hypothetical student might influence that student's selection and pursuit of his school and vocational goals.

(vi) confirm, in a conference with their parents, that they understood their personal characteristics information.

3. The 1971 San Jose Unified Effective Personal Problem Solving Program

Two of the six areas of this program received preliminary field testing. These two areas focus on the following skills:

(a) perceiving and delineating personal problems; and

(b) searching for information to resolve personal problems.

Of the eleventh- and twelfth-grade students who responded to a questionnaire related to this program:

(a) 100% of them agreed that most people have personal problems of one kind or another.

(b) 85% disagreed with the statement that "what happens is pretty much up to luck or fate; we can't really influence what happens to us."

(c) 90% expressed the desire to be better at handling their own personal problems.

(d) 88% felt that they could learn how to solve personal problems better than they do now.

Many of these students recommended that this training program be made available to students at an earlier grade level (e.g., during junior high school). They also contributed constructive suggestions which are being used to improve all parts of the problem-solving program.

4. The 1971-72 San Jose Unified Personal and Social Development Program

Tenth-grade students who had experienced the program were not more able (than were control students in the same school and in a comparable school) to improve their attitude, knowledge, and behavior in the areas of:

(a) acting constructively in difficult situations.

(b) showing strength of character and integrity.

(c) contributing to group interests and goals.

(d) showing consideration for the feelings of others.

(e) showing leadership.

Example Subjective Reactions to One Career Guidance Program

The following are selected reactions of tenth-grade students to certain questions regarding their experiences in the 1971-72 San Jose Unified Educational-Vocational Guidance Program:

1. If career guidance helped, how did it help?

   a. *It was awful boring in that I could have cared less what those tests, etc. meant. But now as I look back I can see how it helped me think seriously about my job future and how to make things happen.*

   b. *It helped me decide what career I really wanted to take. After finding out about a career I thought I wanted, I didn't want it any more.*

   c. *It mixed me up. When I went in there, I knew exactly where I was going and what I was going to do. Now I can't make up my mind.*

   d. *It helped to let you know what type of courses and schooling are needed for occupations, and occupations that will be open in the future.*

2. How do you feel about 10th graders making general career goals?

   a. *I think it is good, because then they won't turn out like some of the juniors and seniors have, like not knowing what they want.*

   b. *I think it is good to make temporary goals because even if they do change their minds they still have something to go on.*

c. *I think it is good because most kids are too shy to talk to a counselor about what they're going to do in the future or just aren't interested. If you make people take the course, people are secretly thanking you.*

d. *I think it's sort of stupid because you just don't want to think about those things in 10th unless you are going to quit school.*

e. *I feel it is a good idea because this way they know what classes to take to prepare for their goal.*

3. How do you feel about people who have no long-term goals?

a. *People without definite goals are really in pretty bad shape, because you can't go places without some place to go. They should try to develop themselves to the point where they could select a goal.*

b. *It's going to be harder for them because they can't take the classes they need in high school to be what they want after they get out of high school.*

c. *I really feel sorry for them, because they don't know where they are going or what they are going to do. They also don't know what prerequisites to take. I kind of feel they are wishy-washy people.*

d. *It's their problem. If they don't know what they want to do, give them time.*

e. *They're being cheated. By the time they decide on one they will probably have to go to summer school, night school, or something like that.*

4. Do you feel you are able to influence your future?

a. *A lot. After all, it is your future in your life, so you really have the most to say about it. You can select your own opportunities and goals; no one else can do it for you. Attitude also has a lot to do with it. An "I don't care" attitude indicates a rocky future.*

b. *No, destiny is already made out for you.*

c. *Yes, certainly, in most cases you make what you are and how hard you work for it.*

d. Yes, if you know what you want, you can change yourself to get it.

e. Yes, selecting courses which could help you to get a job would affect your future greatly.

5. What important things did you learn about yourself?

a. I learned some of my abilities which I never thought I had, and some I need to work at.

b. I learned my abilities and what I most likely would be successful in.

c. That my interests were leading toward something I didn't know anything about.

d. Nothing, really.

e. I learned that I tend to underestimate myself, and also that I'm more independent than I thought. I came out with a much higher opinion of my abilities.

f. What a fool I've been. How I haven't paid attention to my future.

In summary, if guidance systems are to improve in meeting the actual needs of youth, there is a major need for the types of rigorous procedures for evaluating guidance programs as are described in this chapter. Such evaluations require clearly defined and measurable product and procedural objectives, as well as an accurate knowledge of the practical context in which judgments concerning achievement of these objectives must be made. Data generated by a program must be related to the behaviors defined in these objectives, collected accurately, presented in easily interpretable form, and provided in time to be utilized by decision makers at all levels. In addition, information on unanticipated program outcomes must also be emphasized. Only in this way can program planners collect reliable and valid information which will help improve programs each time they are implemented, as well as determine the costs and benefits of career guidance.

Chapter IV Training Objectives

This chapter was designed to help the reader to:

1. define and describe at least two purposes of each of the following types of evaluation:

   a. product evaluation;
   b. procedural evaluation; and
   c. evaluation of unanticipated side effects.

2. list at least the following number of instruments for collecting data on each of these three types of evaluation:

   a. five techniques for product evaluation;
   b. one technique for procedural evaluation; and
   c. two techniques for unanticipated side effects.

3. furnish at least one reason why criterion-referenced measurement is appropriate for evaluating the effects of an individualized guidance system.

4. outline at least two reasons for incorporating a version of an experimental research strategy in the evaluation design of an individualized guidance system.

5. identify at least two strategies that are appropriate for scoring typical items contained in guidance program evaluation instruments.

6. summarize the rationale for analyzing evaluation data collected in field tests of individualized guidance systems.

7. describe two major purposes of conducting the following two kinds of evaluations of guidance programs:

   a. formative;
   b. summative.

8. explain at least two conditions that must be met before a summative evaluation of guidance programs is appropriate.

The reader should review pertinent sections of this chapter if, after reading the above objectives, he identifies any that he has not achieved.

CHAPTER V

How to Go About It:

Career Guidance Program Development

This chapter summarizes the current level of development of the application of the CCGS planning model and process to design, implement, evaluate, and revise career guidance programs. The steps of applying the system are listed in the left-hand columns on the following pages, and are stated in terms of product and process objectives. *Product objectives* state the desired accomplishments of local program planners. *Process objectives* state the planning activities that planners must conduct in order to bring about the results specified in each product objective. The right-hand column lists *materials and techniques* which program planners will find helpful in accomplishing these planning activities . These resources are recommended on the basis of either research efforts attempted during the various field tests summarized in the preceding four chapters, or the results of reputable implementations of other guidance approaches. Although activities are listed sequentially, these planning stages are not being recommended on an inflexible basis. On paper, a planning process may seem lock-step. In reality, the sequence of planning activities can be altered and the outcomes of some activities might require revisions in preceding or succeeding planning tasks. What is presented here are suggestions for guidance program design and implementation which can be adapted to local needs and conditions.

Objectives for the Program Planner	Planning Materials and Techniques
1. Product Objective: To have the most feasible, comprehensive, and effective approach for planning and implementing guidance systems. (In the objectives which follow, it is assumed that the Comprehensive Career Guidance System approach has been selected as the best planning method.) Process Objectives 1:1 To explain the CCGS model and process and at least three alternative approaches for planning guidance systems and programs. 1:2 To state the advantages and disadvantages of the CCGS approach compared to those of alternative planning approaches. 1:3 To estimate the feasibility and effectiveness of using each of these planning approaches. 1:4 To first weigh these estimates and then to select the planning approach most comprehensive, effective, and feasible for the local conditions in which the planner operates.	For Objectives #1:1 through #1:5 A. Chapter I of this Volume I outlines the Comprehensive Career Guidance System. B. Campbell, Robert E. Applications of the Systems Approach to Career Guidance Programs, in *Focus on Guidance*, Volume 4, Number 8, Denver, Colorado: Love Publishing Company, April 1972. (One section of this document focuses on the "Comprehensive Career Guidance System." Another section describes "The Ohio State Model.") C. Hosford, R.E. & Ryan, A.T. Systems Design in the Development of Counseling and Guidance Programs. *Personnel and Guidance Journal*, 1970, 49, 221-230. D. Stanford, B. How Innovators Fail: Teaching Human Development. *Media and Methods*, October 1971, 26-31. E. Thoresen, C.E. The Systems Approach and Counselor Education: Basic Features and Implications. *Counselor Education and Supervision*, 1969, 9, 3-17.

Objectives for the Program Planner	Planning Materials and Techniques
(2.) Product Objective: To have a summary of all the objectives and activities that make up current guidance programs. This information must be available for use in Product Objectives #3 and #5. Process Objectives 2:1 To design a survey instrument to collect data on all guidance objectives and activities currently emphasized in the target area (i.e., the school or district for which this planning is being conducted). 2:2 To pilot-test this instrument with 2 or 3 counseling personnel and to revise it on the basis of data collected. 2:3 To administer the revised instrument to all counselors (and other counseling personnel) in the target area. 2:4 To summarize all data collected on current guidance objectives and activities.	For Objective #2:1 A simple, open-ended instrument could be used by school personnel to record the objectives of, and activities included in, the counseling currently being done. However, a more structured technique is recommended to produce consistency in the format of the responses. This will make it easier to summarize and compare data received from the various sources. An example of this structured technique is the "Counseling Services: Objectives and Activities" instrument used in various field tests. This instrument asks the respondents to indicate: the overall percentage of counseling time they devote to various career areas, the percentage of time devoted to specific objectives in each career area (example objectives are provided as are spaces for ones to be added by the respondents), and the counseling activities performed in each area.

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2.5 To verify this summary with appropriate school or district staff.	
(3.) Product Objective: To have an approved, written statement of the high- and low-ranking guidance needs and wants of youth in the target area. (These needs and wants should be derived from empirical data based on the perceptions of adults and youth.)	
Process Objectives	
3:1 To study the rationale for conducting an assessment of what outcomes youth should be able to achieve in the various areas of their career development. (This is called a "desired status" needs assessment.)	For Objective #3:1 A. Chapter II of this document. B. Popham, W.J. *Educational Needs Assessment in the Cognitive, Affective, and Psychomotor Domain.* University of California at Los Angeles. Paper presented at the ESEA Title III Regional Workshops sponsored by the United States Office of Education, 1969.
3:2 To review all CCGS career areas and select those on which the desired-status needs assessment process will focus.	For Objective #3:2 The six career areas are presented on page 6 of this document.
3:3 To use the data on guidance objectives collected for Product Objective #2 to rewrite or augment the available CCGS needs statements in the light of local regulations and constraints.	For Objective #3:3 Approximately 35 needs statements have been written in each of the four areas summarized on pages 28 and 29 of this document. Student and adult versions are available.

Objectives for the Program Planner	Planning Materials and Techniques
3:4 To adapt the desired-status needs assessment instruments and procedures to local conditions.	For Objective #3:4 A needs-assessment instrument and procedures are outlined on pages 27 through 32 of this document.
3:5 To conduct detailed orientation sessions for all youth and adults in the sample groups to insure that they understand: (a) the purpose and nature of this assessment, as well as (b) the evolving nature of careers and the trends which will influence career planning and development.	For Objective #3:5 Orientation materials used in various field tests include: A. "To the Student" (Instructions) B. "To the Adult" (Instructions) C. "Interviewer Instructions for Student Orientation"
3:6 To train all interviewers who will administer the desired-status needs assessment procedures.	
3:7 To assess youth and adult perceptions of the desired status of youth career planning and development skills in the target samples.	For Objective #3:7 A "Student Information Form" and a similar "Adult Information Form" are available for recording interviewee assessment responses as well as selected biographical data.
3:8 To obtain or develop instruments for collecting data on the current status of youth career planning and development as indicated by the responses youth make on pencil-and-paper tests and surveys, as well as in simulated or reality situations. (This information should be coordinated with information obtained on the desired status of youth career needs and wants obtained from using the card-sort technique, and should be compared to data on guidance objectives based on counseling personnel perceptions collected for Product Objective #2.)	For Objectives #3:8 and #3:9 One approach is a card-sort procedure similar to that used in the desired status assessment process. This time respondents focus on what they perceive as the current status of youth career planning and development. A more detailed approach is a survey of students using pencil-and-paper tests to assess the nature and extent of their: A. knowledge of high visibility occupations, job clusters, and the world of work in general--an *Occupational Knowledge Survey* has been developed;

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	B. knowledge of educational opportunities and requirements--an *Educational Knowledge Survey* has been outlined; C. perceptions of who determined and how they arrived at their career goals, and their performance toward these goals--a *Goals and Behavior Survey* has been pilot tested; D. perceptions of which personal problem-solving skills they have and which they do not have-- a *Program for Effective Personal Problem Solving Questionnaire* has been developed; E. personal and social responses--a *Performance Record*, using the critical incident technique, and a *High School Social Situations Test* have been field tested extensively.
3:9 To assess youth and adult perceptions of the <u>current</u> career planning and development status of youth. 3:10 To develop decision rules for: (a) summarizing youth and adult open-ended comments on current guidance services and the needs assessment procedure; (b) integrating discrepant youth and adult perceptions regarding youth guidance needs and wants (e.g., in some cases, more stress might be given to the opinions of "experts" in career planning and development); and (c) combining data on the <u>desired</u> levels of youth career planning and development (collected in Process Objective #3:7) and the <u>current</u> status of youth career planning and development (collected for Product Objective #2 and in Process Objective #3:9).	<u>For Objectives #3:9 and #3:10</u> One appropriate resource used in the field tests is a technique described in a paper entitled, "Suggested decision strategy for synthesizing computerized data on student and adult perceptions of student guidance and counseling needs.

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3:11 To employ these decision rules with the available data. 3:12 To produce a written summary of the high- and low-ranking guidance needs and wants selected in Process Objective #3:11. 3:13 To submit this summary for review by key decision makers in the target area, make revisions as needed, and receive final approval. (4.) Product Objective: To have an approved, written summary of all goal statements and student performance objectives for the proposed guidance system. (Student performance objectives refer to student outcomes of the proposed system. They specify what the student will be able to do as a result of participating in the system. In effect, they are the students' product objectives, but the alternate term is used here to avoid confusion with planners' product objectives. This document should also include an estimation of what type and amount of resources should be assigned to each goal.) 4:1 To prepare for the production of goal statements and related performance objectives by: (a) specifying the required skill levels for writing goal statements and objectives; (b) assessing the current skill levels of personnel who will work on this task; (c) studying available training packages which teach the skills required but not possessed (if any) and (d) acquiring the needed skills by participating in relevant training activities.	<u>For Objectives #4:1, #4:2, and #4:5</u> Four books by Robert F. Mager provide the most relevant training for these objectives. Published by Fearon Publishers of San Francisco, these books include: A. *Goal Analysis*, 1972. B. *Preparing Instructional Objectives*, 1962.

Objectives for the Program Planner	Planning Materials and Techniques
4:2 To derive goal statements from the priority needs and wants identified for Product Objective #3.	C. *Developing Vocational Instruction*, 1967. D. *Developing Attitude Toward Learning*, 1968. Other appropriate references are: E. Dillman, C. and Rahmlow, H. *Writing Instructional Objectives*. San Francisco: Fearon Publishers, 1972. F. Popham, W. J. and Baker, E. L. *Establishing Instructional Goals*. Englewood Cliffs, New Jersey: Prentice-Hall, 1970. G. Kibler, R. J., Barker, L. L., and Miles, D. T. *Behavioral Objectives and Instruction*. Boston, Massachusetts: Allyn and Bacon, 1970. H. Yelon, S. L. and Scott, R. O. *A Strategy for Writing Objectives*. Dubuque, Iowa: Kendall, Hunt Publishing, 1970. I. Eiss, A. F. and Harbeck, M. B. *Behavioral Objectives in the Affective Domain*. Washington, D.C.: National Education Association Publication Series, 1969.
4:3 To review available listings of objectives for guidance programs and units. 4:4 To study alternative approaches to sequencing goal statements and related student performance objectives on the basis of youth developmental skills in planning, goal setting, and achievement.	<u>For Objectives #4:3 and #4:4</u> The references for guidance-related objectives include: A. The CCGS listing of objectives in the career areas of: educational and vocational planning, personal and social development, and learning-how-to-learn. These are sequenced in the three skill categories noted in Process Objective #4:4.

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(An acceptable sequence must lead students through the acquisition and performance of the following skills: (a) basic planning beginning with awareness and understanding, (b) accommodation and decision making, (c) implementing, evaluating, and revising chosen plans of action.)	B. Wellman, F. *A Taxonomy of Guidance Objectives*. St. Louis, Missouri: University of Missouri, 1968. These objectives are published as Appendix B in the California Personnel and Guidance Association's Monograph Number 3, *Accountability in Pupil Personnel Services: A Process Guide for the Development of Objectives*. Fullerton, California: CPGA, 1971. These objectives in the educational, vocational, and social domains are divided into two levels of "perceptualization objectives," two levels of "conceptualization objectives," and three levels of "generalization objectives." C. Monograph Number 4 of the California Personnel and Guidance Association will be published during 1972 and will stress the topic of career guidance. D. National Assessment of Educational Progress. *Objectives for Career and Occupational Development*. Denver, Colorado: Education Commission of the States, 1971.
4:5 To write student performance objectives which are both related to the goal statements listed in Process Objective #4:2 and presented sequentially. (At this point, it is only necessary to describe the outcome behaviors of students in the statements of performance objectives. Descriptions of the stimulus conditions and performance standards for these outcome behaviors will be included later.)	

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4:6 To group the goal statements and performance objectives into programs and rank these programs for implementation according to local priorities.	
4:7 To estimate, in general terms, the type and amount of various resources (e.g., materials, facilities, and staff time) which should be assigned to each goal listed in Process Objective #4:6 to insure that students will have sufficient opportunities to attain them.	
4:8 To produce a written summary of all goal statements and student performance objectives for the proposed guidance system.	
4:9 To submit this summary for review by key decision makers in the target area, make revisions as needed, and receive final approval.	
(5.) Product Objective: To have an approved, written "guidance model" for the target area. (This product must include: detailed goal statements, student-based performance--product--objectives stated in measurable terms, and potentially effective activities--written as student process objectives--for helping students achieve these performance objectives.)	
Process Objectives	
5:1 To make a comprehensive list of alternative instructional and counseling procedures for helping youth achieve the career planning and development goals and student performance objectives identified for Product Objective #4.	For Objective #5:1 Chapter III of this document (page 43 in particular) focuses on this topic. Two key references are:

Objectives for the Program Planner	Planning Materials and Techniques
	A. Johnson, S. R. and Johnson, R. B. *Developing Individualized Instructional Material*. Palo Alto, California: Westinghouse Learning Press, 1970. B. Brown, J. H. and Brown, C. Intervention Packages: An Approach to Self-Management. *Personnel and Guidance Journal*, 1972, 50, 809-816.
5:2 To review programs and units which Chapter IV indicated produced positive impact on youth during field tests.	For Objective #5:2 These programs and units are outlined on pages 77 - 80 of this document.
5:3 To review summaries of available CCGS individualized student learning units, other than those reviewed in Process Objective #5:2.	For Objective #5:3 The titles and main objectives of these 93 units are listed in a summary document available through the Youth Development Research Program of the American Institutes for Research, Palo Alto, California, 94302.
5:4 To review available student learning units and resource materials produced by commercial or non-profit sources.	
5:5 To review current guidance activities and resources summarized for Product Objective #2.	
5:6 To select the most appropriate resources for each goal and objective identified for Product Objective #4. (If appropriate resources are not available, it is necessary to outline those that must be either adapted from others or developed.)	
5:7 To describe for each student activity all materials, services, and programs necessary to help students achieve their goals and related performance objectives.	For Objective #5:7 See references listed for Objectives #4:1 - #4:3, and #4:5.

Objectives for the Program Planner	Planning Materials and Techniques
5:8 To produce a written "guidance model" for the target area. 5:9 To submit this model for review by key decision makers in the target area, make revisions as necessary, and receive final approval. (6.) Product Objective: To write a 3-4 page summary describing both the basic guidance model developed for Product Objective #5 and possible ideas for field tests to be conducted during the next school year (or semester). Process Objectives 6:1 To obtain suggestions for the format and content of this "handout." 6:2 To draft a rough copy of the summary. 6:3 To solicit student and staff reactions to this draft and revise it as necessary. 6:4 To print sufficient copies of the summary for distribution. (7.) Product Objective: To have an approved, detailed description of the proposed field test(s) of the basic guidance model developed for Product Objective #5. (This product must describe the tasks that program implementers should accomplish in order to insure that students in selected field test sites have the opportunities necessary to meet goals	

Objectives for the Program Planner	Planning Materials and Techniques
and student performance objectives specified for Product Objective #5 and summarized in the "handout" developed for Product Objective #6. General tasks should be written as process objectives--for the program developers--while the more detailed ones should be briefly outlined as implementation strategies.) Process Objectives 7:1 To select tentative school site(s) for field testing prototype guidance programs and student learning units. 7:2 Using the 3-4 page summary developed for Product Objective #6, to discuss these tentative selections and proposed field test ideas with appropriate district and school administrators and school personnel. 7:3 To finalize the selection of, and receive appropriate authorization for, the field test site(s). 7:4 To identify key persons (teachers, administrators, counselors, students, parents, etc.) to assist in achieving Process Objectives #7:5 - #7:8. 7:5 To identify and select those students at the field test site(s) who are representative of major student target populations and who will experience either the experimental guidance programs or various types of control treatments. 7:6 To write the student process objectives which describe activities students in the field test site(s) will perform in order to achieve the student performance objectives (specified for Product Objective #5) appropriate to youth in the field tests. These objectives should now be tailored to students in the proposed field test sites.	For Objective #7:6 See Chapter III of this document as well as references listed for Process Objectives #4:1 - #4:3, and #4:5.

Objectives for the Program Planner	Planning Materials and Techniques
7:7 To list in sequence each task which must be accomplished, and develop a timetable of deadlines for all major steps which will insure that the implementation of the field test of the guidance model proceeds smoothly. (Example tasks include: guidance unit review, adaptation, development, and production; scheduling of students and school facilities. These general tasks should be written as process objectives to be achieved by the program developers. Example tasks are described in Process Objectives #8:1 through #12:6.) 7:8 To outline briefly all specific implementation strategies which must be conducted to initiate the field tests and the scheduled dates for completing each strategy. (Such strategies would specify: who would perform which unit development and adaptation tasks, what materials would be needed by the unit development team, how and where the completed units would be printed, how they would be delivered to the field test sites, etc.) 7:9 To produce a written detailed description of the proposed field test(s) of the basic guidance model developed for Product Objective #5. 7:10 To submit this description for review by key decision makers in the target area, make revisions as necessary, and receive final approval.	

Objectives for the Program Planner	Planning Materials and Techniques
8. Product Objective: To have an approved, written evaluation rationale which describes the evaluation design and procedures, and lists instrument specifications for assessing the extent to which youth in the field test site(s) have achieved their career planning and development goals and objectives. Process Objectives 8:1 To review CCGS evaluation instruments and techniques. (These include: end-of-unit proficiency tests, criterion-referenced survey tests, attitude inventories, questionnaires, reaction sheets, interview formats, and case study techniques.) 8:2 To review other available evaluation instruments and techniques. 8:3 To develop an evaluation rationale for the guidance system and programs being planned. (This rationale should describe the evaluation design, procedures, schedule, and instruments which will be used.) 8:4 To describe the stimulus conditions and performance standards for each student performance objective written in Process Objective #4:5 and summarized for Product Objective #4.	For Objective #8:1 These resources are available through the Youth Development Research Program of the American Institutes for Research, Palo Alto, California, 94302. For Objectives #8:2 - #8:4 Chapter IV of this document is devoted to the topic represented by these objectives. Two additional key references are published as Monographs Numbers 1 and 2 by the California Personnel and Guidance Association, Fullerton, California. These are: A. Krumboltz, J. D. *Stating the Goals of Counseling*, 1966. B. O'Hare, R. W. and Lasser, B. *Evaluating Pupil Personnel Programs*, 1971. C. In addition, Chapter 4 ("Evaluation in Objectives-Based Pupil Personnel Programs") of CPGA Monograph Number 3 also discusses evaluation.

Objectives for the Program Planner	Planning Materials and Techniques
	D. California Personnel and Guidance Journal, Volume II. *Measurable Outcomes of Personnel and Guidance Services*, Winter, 1969-70. E. Glaser, R. and Nitko, A. Measurement in Learning and Instruction. In R. Thorndike (Ed.), *Educational Measurement*. Washington, D.C.: American Council on Education, 1971, Pp. 625-670. F. Popham, W. *Criterion-referenced Measurement*. Englewood Cliffs, N.J.: Educational Technology Publications, 1971.
8:5 To produce a written evaluation rationale for the field test(s). 8:6 To submit this rationale statement for review by key decision makers in the target area, make revisions as necessary, and receive final approval.	
(9.) Product Objective: To have official clearance for implementation of the proposed field tests in the selected school site(s). Process Objectives 9:1 To collect final information on the costs of implementing, evaluating, and revising all aspects of the proposed field test programs as well as preliminary cost estimates for all staff assessment and development procedures (see Product Objective #10). 9:2 To budget for activities remaining in the first semester or year of the proposed field tests.	

Objectives for the Program Planner	Planning Materials and Techniques
9:3 To list cost estimates for each goal statement and student performance objective. (This will facilitate cost-benefit analyses and build accountability into the guidance field tests.)	
9:4 To obtain official approval for a budget which includes <u>all</u> costs of proposed field tests.	
(10.) <u>Product Objective</u>: To have trained counseling personnel who will implement the proposed guidance field tests.	
<u>Process Objectives</u>	
10:1 To analyze the tasks and related responsibilities which counseling personnel (e.g., the actual program implementers: teachers, counselors, parents, etc.) must perform to successfully implement the field tests.	<u>For Objectives #10:1 - #10:10</u> Many references on the topic of training counseling personnel are available in the professional literature. A key article which should be consulted is: "The PPS Model: A Prototype for Change?: Report of the National Conference of Pupil Personnel Services." *Impact*, 1972, <u>1</u> (2), 21-28. Key persons who have been working on competency-based training programs for counseling personnel include: A. Drs. J. D. Krumboltz and C. E. Thoresen of the School of Education, Stanford University, Stanford, California. B. Dr. N. R. Stewart of the College of Education, Michigan State University, East Lansing, Michigan. C. Drs. Allen Ivey and R. H. Fredrickson of the School of Education, University of Massachusetts, Amherst, Massachusetts.
10:2 To identify the <u>competencies</u> required for successful performance of each task and responsibility analyzed in Process Objective #10:1.	
10:3 To convert all statements of such competencies into <u>product objectives</u> (stating what competencies counseling personnel must achieve) and <u>process objectives</u> (describing what they must do to achieve these competencies) for a training program.	
10:4 To identify possible candidates for implementing the guidance system and programs in the field test site(s).	

Objectives for the Program Planner	Planning Materials and Techniques
10:5 To design and implement procedures for helping available candidates assess their current competencies in respect to those competencies required of field test counseling personnel. 10:6 To select counseling personnel and volunteers to implement the guidance system and programs in the field test site(s) and decide whether or not they need in-service or pre-service training for the tasks for which they will be responsible. 10:7 To identify available competency-based training programs appropriate to the required competencies listed in Process Objective #10:2. 10:8 To adapt or produce training programs and units where current ones are not available or appropriate. 10:9 To supply all instructional resources and coordinate their use with staff and training schedules. 10:10 To pilot test all training procedures and materials with 2-3 staff members and to revise as necessary. 10:11 To train those counseling personnel who do not have the competencies they will need. (In essence, this will be a more complete field test of the training programs. Suggestions for training improvements should be collected for later use in Process Objective #12:5.)	

Objectives for the Program Planner	Planning Materials and Techniques
(11.) Product Objective: To have selected school site(s) which are equipped with the materials and resources needed to implement guidance programs in the field tests. Process Objectives 11:1 To identify, select, and train personnel in skills required to develop or adapt the individualized student learning units which will be used in the field test site(s). 11:2 To develop new learning units and to modify existing units to the needs and characteristics of students in the field test site(s). 11:3 To pilot test with a small group of students each unit developed in Process Objective #11:2, and to revise as necessary. 11:4 To print and deliver to the schools sufficient quantities of each unit. 11:5 To order and deliver to the schools other necessary materials and equipment (e.g., commercial materials, tape recorders, filmstrip viewers).	For Objectives #11:1 - #11-4 See Chapter III of this document.
(12.) Product Objective: To have cost-effective guidance programs that successfully meet the changing career planning and development needs of youth as well as the changing needs of society. Process Objectives 12:1 To implement the proposed field tests of the guidance system and its components.	For Objectives #12:1 - #12:3 See Chapter IV of this document.

Objectives for the Program Planner	Planning Materials and Techniques
12:2 To collect formative evaluation data from students and staff in the field test site(s).	
12:3 To revise system and program materials and procedures on the basis of these evaluation data.	
12:4 To conduct follow-up studies of samples of participants and control youth.	
12:5 To make cost-effectiveness analyses of the guidance programs implemented.	
12:6 To continue to implement, improve, and readminister revisions of the initial student guidance programs as well as staff training programs while: (1) adapting them to the changing needs and characteristics of the targeted youth, and (2) extending the system to priority programs not implemented in initial field tests.	

The preceding objectives and attendant materials and techniques represent a planning framework which creative local planners may employ in meeting youth needs for programs of career planning and development. It will be necessary to tailor the elements of this framework to local needs and conditions, as is reflected in the CCGS emphasis upon a continuing process of comprehensive planning (including program design, implementation, evaluation, and revision). Planners using the framework may have questions or comments regarding the application of this system in their local settings; such inquiries are welcome, and should be addressed to:

Youth Development Research Program
American Institutes for Research
P.O. Box 1113
Palo Alto, California 94302